

**FEDERALLY ENFORCEABLE STATE  
OPERATING PERMIT (FESOP) RENEWAL  
OFFICE OF AIR QUALITY**

**Milestone Contractors, L.P.  
14413 West U.S. 40  
Cambridge City, Indiana 47327**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F177-14100-03232	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: February 15, 2002  Expiration Date: February 15, 2007

**SECTION A SOURCE SUMMARY**

- A.1 General Information [326 IAC 2-8-3(b)]
- A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]
- A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]
- A.4 FESOP Applicability [326 IAC 2-8-2]
- A.5 Prior Permits Superseded [326 IAC 2-1.1-9.5]

**SECTION B GENERAL CONDITIONS**

- B.1 Permit No Defense [IC 13]
- B.2 Definitions [326 IAC 2-8-1]
- B.3 Permit Term [326 IAC 2-8-4(2)]
- B.4 Enforceability [326 IAC 2-8-6]
- B.5 Termination of Right to Operate [326 IAC 2-8-9][326 IAC 2-8-3 (h)]
- B.6 Severability [326 IAC 2-8-4(4)]
- B.7 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]
- B.8 Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)]
- B.9 Compliance Order Issuance [326 IAC 2-8-5(b)]
- B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]
- B.11 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]
- B.12 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]
- B.13 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)][326 IAC 2-8-5(a)(1)]
- B.14 Emergency Provisions [326 IAC 2-8-12]
- B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]
- B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination
- B.17 Permit Renewal [326 IAC 2-8-3(h)]
- B.18 Permit Amendment or Revision [326 IAC 2-8-10][326 IAC 2-8-11.1]
- B.19 Operational Flexibility [326 IAC 2-8-15]
- B.20 Permit Revision Requirement [326 IAC 2-8-11.1]
- B.21 Inspection and Entry [326 IAC 2-8-5(a)(2)] [I13-14-2-2]
- B.22 Transfer of Ownership or Operation [326 IAC 2-8-10]
- B.23 Annual Fee Payment [326 IAC 2-8-4(6)] [326 IAC 2-8-16]

**SECTION C SOURCE OPERATION CONDITIONS**

**Emission Limitations and Standards [326 IAC 2-8-4(1)]**

- C.1 Overall Source Limit [326 IAC 2-8]
- C.2 Particulate Matter Emission Limitations For Processes with Process Weight Rates
- C.3 Opacity [326 IAC 5-1]
- C.4 Open Burning [326 IAC 4-1][IC 13-17-9]
- C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]
- C.6 Fugitive Dust Emissions [326 IAC 6-4]
- C.7 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]
- C.8 Operation of Equipment [326 IAC 2-8-5(a)(4)]
- C.9 Stack Height [326 IAC 1-7]
- C.10 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61.140]

**Testing Requirements [326 IAC 2-8-4(3)]**

- C.11 Performance Testing [326 IAC 3-6]

**Compliance Requirements [326 IAC 2-1.1-11]**

- C.12 Compliance Requirements [326 IAC 2-1.1-11]

**Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

- C.13 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]
- C.14 Monitoring Methods [326 IAC 3][40 CFR 60][40 CFR 63]
- C.15 Pressure Gauge Specifications

**Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5]**

- C.16 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]
- C.17 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]
- C.18 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2-8-4] [326 IAC 2-8-5]
- C.19 Actions Related to Noncompliance Demonstrated by a Stack Test

**Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]**

- C.20 General Record Keeping Requirements [326 IAC 2-8-4(3)][326 IAC 2-8-5]
- C.21 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

**Stratospheric Ozone Protection**

- C.22 Compliance with 40 CFR 82 and 326 IAC 22-1

**SECTION D.1 FACILITY OPERATION CONDITIONS**

**Drum Mix Dryer & Burner**

**Emission Limitations and Standards [326 IAC 2-8-4(1)]**

- D.1.1 General Provisions Relating to NSPS [326 IAC 12-1][40 CFR Part 60, Subpart A]
- D.1.2 Particulate Matter (PM) [326 IAC 12][40 CFR 60.90, Subpart I]
- D.1.3 Particulate Matter 10 Microns (PM-10) [326 IAC 2-8-4]
- D.1.4 Opacity [326 IAC 12] [40 CFR 60.90, Subpart I]
- D.1.5 Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 7-1.1-1][326 IAC 7-2-1]
- D.1.6 Re-refined Waste Oil and Equivalent Usage [326 IAC 2-8-4]
- D.1.7 Natural Gas and Equivalent Usage [326 IAC 2-8-4]
- D.1.8 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

**Compliance Determination Requirements**

- D.1.9 Testing Requirements [326 IAC 2-8-5(a)(1), (4)][326 IAC 2-1.1-11]
- D.1.10 Sulfur Dioxide Emissions and Sulfur Content
- D.1.11 Particulate Matter (PM)

**Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

- D.1.12 Visible Emissions Notations
- D.1.13 Parametric Monitoring
- D.1.14 Baghouse Inspections
- D.1.15 Broken or Failed Bag Detection

**Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

- D.1.16 Record Keeping Requirements
- D.1.17 Reporting Requirements
- D.1.18 Used Oil Requirements

**SECTION D.2 FACILITY OPERATION CONDITIONS**

**Liquid Asphalt Storage Tank**

**Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

D.2.1 Record Keeping Requirements [326 IAC 12][40 CFR 60.110b, Subpart Kb]

**SECTION D.3 FACILITY OPERATION CONDITIONS**

**Cold Mix Asphalt Storage**

**Emission Limitations and Standards [326 IAC 2-8-4(1)]**

D.3.1 Volatile Organic Compounds (VOC) [326 IAC 2-8-4]

**Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

D.3.2 Record Keeping Requirements

D.3.3 Reporting Requirements

**SECTION D.4 FACILITY OPERATION CONDITIONS**

**Insignificant Activity - Degreasing**

**Emission Limitations and Standards [326 IAC 2-8-4(1)]**

D.4.1 Volatile Organic Compounds (VOC)

**Certification Form**

**Emergency Occurrence Form**

**Quarterly Report Forms**

**Quarterly Deviation and Compliance Monitoring Report Form**

**ATTACHMENT A - ASPHALT PLANT SITE FUGITIVE DUST CONTROL PLAN**

## SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-8-3(b)]

---

The Permittee owns and operates a stationary asphalt pavement production plant.

Authorized Individual:	Ron Terrell, Senior Manager, Asphalt Plants
Source Address:	14413 West U.S. 40, Cambridge City, Indiana 47327
Mailing Address:	P.O. Box 421459, Indianapolis, Indiana 46242-1459
SIC Code:	2951
County Location:	Wayne
County Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP) Minor Source, under PSD Rules; Minor Source, Section 112 of the Clean Air Act

### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

---

This stationary source consists of the following emission units and pollution control devices:

- (a) one (1) aggregate drum dryer and one (1) aggregate drum mixer, identified as emission unit Nos. 2a and 2b, with a maximum capacity of 300 tons per hour. The dryer is equipped with one (1) re-refined waste oil fired burner with a maximum rated capacity of 103.5 million (MM) British thermal units (Btu) per hour using natural gas and No. 2 distillate fuel oil as back-up fuels and one (1) baghouse for air pollution control, exhausting at one (1) stack, identified as S-1;
- (b) one (1) drag slat conveyor, one (1) Recycled Asphalt Pavement (RAP) conveyor, one (1) feed conveyor, one (1) scale conveyor, and one (1) screen;
- (c) one (1) liquid asphalt storage tank, identified as Tank 11, with a maximum storage capacity of 20,000 gallons, exhausting at one (1) stack, identified as V-3; and
- (d) cold-mix (stockpile mix) asphalt storage piles.

### A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

---

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) two (2) asphalt storage tank heaters, identified as emission unit Nos. 12 and 14, each burning natural gas or No. 2 distillate fuel oil, each rated at 1.4 and 0.864 MMBtu per hr, respectively, and each exhausting at two (2) stacks, identified as S-2A, S-2B, S-4A and S-4B, respectively;
- (b) one (1) re-refined waste oil storage tank, identified as Tank 10, with a maximum storage capacity of 20,000 gallons, exhausting at one (1) stack, identified as V-6;
- (c) one (1) liquid asphalt storage tank, identified as Tank 13, with a maximum storage capacity of 25,000 gallons, exhausting at one (1) stack, identified as V-5;
- (d) one (1) cold feed system consisting of six (6) compartments with a total aggregate holding capacity of 150 tons;

- (e) three (3) hot mix asphalt cement storage silos, each with a maximum storage capacity of 200 tons;
- (f) one (1) RAP feed bin;
- (g) aggregate storage piles, with a maximum storage capacity of 22,000 tons;
- (h) propane or liquefied petroleum gas, or butane-fired combustion sources with heat input equal to or less than 6.0 MMBtu per hr;
- (i) Volatile Organic Compound (VOC) and Hazardous Air Pollutant (HAP) storage tanks with capacity less than or equal to 1,000 gallons and annual throughput less than 12,000 gallons;
- (j) vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids;
- (k) application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings;
- (l) degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6 (parts washer using non-HAP Safety Kleen or Crystal Clean solvent);
- (m) cleaners and solvents having a vapor pressure equal to or less than 2 kPa; 15mm Hg; or 0.3 psi measured at 38 degrees C (100°F) or; having a vapor pressure equal to or less than 0.7 kPa; 5 mm Hg; or 0.1 psi measured at 20°C (68°); the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months;
- (n) closed loop heating and cooling systems;
- (o) paved and unpaved roads and parking lots with public access; and
- (p) a laboratory as defined in 326 IAC 2-7-1(20)(C).

**A.4 FESOP Applicability [326 IAC 2-8-2]**

---

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) to renew a Federally Enforceable State Operating Permit (FESOP).

**A.5 Prior Permits Superseded [326 IAC 2-1.1-9.5]**

---

- (a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either
  - (1) incorporated as originally stated,
  - (2) revised, or
  - (3) deletedby this permit.
- (b) All previous registrations and permits are superseded by this permit.

## SECTION B GENERAL CONDITIONS

### B.1 Permit No Defense [IC 13]

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

### B.2 Definitions [326 IAC 2-8-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2, and 326 IAC 2-7) shall prevail.

### B.3 Permit Term [326 IAC 2-8-4(2)]

This permit is issued for a fixed term of five (5) years from the original date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

### B.4 Enforceability [326 IAC 2-8-6]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

### B.5 Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

### B.6 Severability [326 IAC 2-8-4(4)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

### B.7 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

### B.8 Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)] [326 IAC 2-8-5(a)(4)]

(a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit or, for information claimed to be confidential, the Permittee may furnish such records directly to the U. S. EPA along with a claim of confidentiality.[326 IAC 2-8-4(5)(E)]
- (c) The Permittee may include a claim of confidentiality in accordance with 326 IAC 17. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

**B.9 Compliance Order Issuance [326 IAC 2-8-5(b)]**

---

IDEM, OAQ may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

**B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]**

---

- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for:
  - (1) Enforcement action;
  - (2) Permit termination, revocation and reissuance, or modification; and
  - (3) Denial of a permit renewal application.
- (b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- (c) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in condition B, Emergency Provisions.

**B.11 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]**

---

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an authorized individual of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.
- (c) An authorized individual is defined at 326 IAC 2-1.1-1(1).

**B.12 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]**

---

- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than July 1 of each year to:



Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
  - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
  - (2) The compliance status;
  - (3) Whether compliance was continuous or intermittent;
  - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and
  - (5) Such other facts as specified in Sections D of this permit, IDEM, OAQ, may require to determine the compliance status of the source.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

**B.13 Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]**

---

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs), including the following information on each facility:
  - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

**B.14 Emergency Provisions [326 IAC 2-8-12]**

---

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-8-12.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describes the following:

- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
- (2) The permitted facility was at the time being properly operated;
- (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone No.: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section) or,  
Telephone No.: 317-233-5674 (ask for Compliance Section)  
Facsimile No.: 317-233-5967

Failure to notify IDEM, OAQ, by telephone or facsimile within four (4) daytime business hours after the beginning of the emergency, or after the emergency is discovered or reasonably should have been discovered, shall constitute a violation of 326 IAC 2-8 and any other applicable rules. [326 IAC 2-8-12(f)]

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
  - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
  - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
    - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
    - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

**B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]**

- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provision), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.
- (c) Emergencies shall be included in the Quarterly Deviation and Compliance Monitoring Report.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination  
[326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]

---

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a FESOP modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:
  - (1) That this permit contains a material mistake.
  - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
  - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]
- (c) Proceedings by IDEM, OAQ, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

**B.17 Permit Renewal [326 IAC 2-8-3(h)]**

---

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, IN 46206-6015

- (b) Timely Submittal of Permit Renewal [326 IAC 2-8-3]

- (1) A timely renewal application is one that is:

- (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
- (B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

- (2) If IDEM, OAQ upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

- (c) Right to Operate After Application for Renewal [326 IAC 2-8-9]  
If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, any additional information identified as needed to process the application.

**B.18 Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]**

---

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.

- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

Any such application should be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement the administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

**B.19 Operational Flexibility [326 IAC 2-8-15]**

---

- (a) The Permittee may make any change or changes at this source that are described in 326 IAC 2-8-15(b) through (d), without prior permit revision, if each of the following conditions is met:
  - (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
  - (2) Any approval required by 326 IAC 2-8-11.1 has been obtained;
  - (3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
  - (4) The Permittee notifies the:  
  
Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015  
  
and  
  
United States Environmental Protection Agency, Region V  
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590  
  
in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and
  - (5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to public review.  
  
Such records shall consist of all information required to be submitted to IDEM, OAQ, in the notices specified in 326 IAC 2-8-15(b), (c)(1), and (d).
- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-8-15(a) and the following additional conditions:
  - (1) A brief description of the change within the source;
  - (2) The date on which the change will occur;
  - (3) Any change in emissions; and
  - (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

- (c) Emission Trades [326 IAC 2-8-15(c)]  
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).
- (d) Alternative Operating Scenarios [326 IAC 2-8-15(d)]  
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ or U.S. EPA is required.

**B.20 Permit Revision Requirement [326 IAC 2-8-11.1]**

---

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-8-11.1.

**B.21 Inspection and Entry [326 IAC 2-8-5(a)(2)] [IC 13-14-2-2]**

---

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

**B.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10]**

---

- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

The application which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-11(b)(3)]

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16]

- (a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Failure to pay may result in administrative enforcement action, or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-0425 (ask for OAQ, Technical Support and Modeling Section), to determine the appropriate permit fee.



## SECTION C SOURCE OPERATION CONDITIONS

Entire Source
---------------

### Emissions Limitations and Standards [326 IAC 2-8-4(1)]

#### C.1 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

- (1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period. This limitation shall also satisfy the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)).
- (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
- (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) Pursuant to 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), potential to emit particulate matter (PM) from the entire source shall be limited to less than two hundred fifty (250) tons per twelve (12) consecutive month period.

(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided the source's potential to emit does not exceed the above specified limits.

(d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

#### C.2 Particulate Matter Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [326 IAC 6-3-2(c)]

Pursuant to 326 IAC 6-3-2(c), the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.

#### C.3 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

**C.4 Open Burning [326 IAC 4-1] [IC 13-17-9]**

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

**C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]**

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and in 326 IAC 9-1-2.

**C.6 Fugitive Dust Emissions [326 IAC 6-4]**

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

**C.7 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]**

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted on June 17, 1996. The plan is included as Attachment A.

**C.8 Operation of Equipment [326 IAC 2-8-5(a)(4)]**

Except as otherwise provided by statute, rule or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

**C.9 Stack Height [326 IAC 1-7]**

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted.

**C.10 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]**

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
  - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
  - (2) If there is a change in the following:
    - (A) Asbestos removal or demolition start date;
    - (B) Removal or demolition contractor; or
    - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management  
Asbestos Section, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (e) **Procedures for Asbestos Emission Control**  
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4 emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Indiana Accredited Asbestos Inspector**  
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited is federally enforceable.

### **Testing Requirements [326 IAC 2-8-4(3)]**

#### **C.11 Performance Testing [326 IAC 3-6]**

---

- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

#### **Compliance Requirements [326 IAC 2-1.1-11]**

##### **C.12 Compliance Requirements [326 IAC 2-1.1-11]**

---

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

#### **Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

##### **C.13 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]**

---

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented upon issuance of this permit. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment.

Unless otherwise specified in the approval for the new emissions unit, compliance monitoring for new emission units or emission units added through a permit revision shall be implemented when operation begins.

##### **C.14 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]**

---

Any monitoring or testing performed required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63 or other approved methods as specified in this permit.

##### **C.15 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)] [326 IAC 2-8-5(1)]**

- 
- (a) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ( $\pm 2\%$ ) of full scale reading.
  - (b) Whenever a condition in this permit requires the measurement of a temperature, the instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ( $\pm 2\%$ ) of full scale reading.
  - (c) The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

#### **Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

##### **C.16 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]**

---

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

- (a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.

- (b) These ERPs shall be submitted for approval to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

within ninety (90) days from the date of issuance of this permit.

The ERP does require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

- (c) If the ERP is disapproved by IDEM, OAQ, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.
- (d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.
- (e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.
- (f) Upon direct notification by IDEM, OAQ, that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.17 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall submit:

- (a) A compliance schedule for meeting the requirements of 40 CFR 68; or
- (b) As a part of the annual compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP); and

All documents submitted pursuant to this condition shall include the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

C.18 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2-8-4] [326 IAC 2-8-5]

- (a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and is comprised of:
- (1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.

- (2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan to include such response steps taken.
- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:
  - (1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or
  - (2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.
  - (3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, the IDEM, OAQ shall be promptly notified of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.
  - (4) Failure to take reasonable response steps shall constitute a violation of the permit.
- (c) The Permittee is not required to take any further response steps for any of the following reasons:
  - (1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.
  - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied.
  - (3) An automatic measurement was taken when the process was not operating.
  - (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.
- (d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.
- (e) The Permittee shall record all instances when response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

- (f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

**C.19 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4] [326 IAC 2-8-5]**

---

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

**Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]**

**C.20 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]**

---

- (a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

**C.21 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]**

---

- (a) The source shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (d) Unless otherwise specified in this permit, any quarterly report required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The reports do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (e) Reporting periods are based on calendar years.

### **Stratospheric Ozone Protection**

#### **C.22 Compliance with 40 CFR 82 and 326 IAC 22-1**

---

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156
- (b) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.



## SECTION D.1 FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-8-4(10)]:

- (a) one (1) aggregate drum dryer and one (1) aggregate drum mixer, identified as emission unit Nos. 2a and 2b, with a maximum capacity of 300 tons per hour. The dryer is equipped with one (1) re-refined waste oil fired burner with a maximum rated capacity of 103.5 million (MM) British thermal units (Btu) per hour using natural gas and No. 2 distillate fuel oil as back-up fuels and one (1) baghouse for air pollution control, exhausting at one (1) stack, identified as S-1;
- (b) one (1) drag slat conveyor, one (1) Recycled Asphalt Pavement (RAP) conveyor, one (1) feed conveyor, one (1) scale conveyor, and one (1) screen;

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-8-4(1)]

#### D.1.1 General Provisions Relating to NSPS [326 IAC 12-1][40 CFR Part 60, Subpart A]

The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to the facility described in this section except when otherwise specified in 40 CFR Part 60, Subpart I.

#### D.1.2 Particulate Matter (PM) [326 IAC 12] [40 CFR 60.90, Subpart I]

Pursuant to 326 IAC 12, (40 CFR Part 60.90, Subpart I) "Standards of Performance for Hot Mix Asphalt Facilities", the particulate matter emissions from the mixing and drying operations shall be limited to 0.04 grains per dry standard cubic foot (gr/dscf). This is equivalent to a particulate matter emission rate of 10.44 pounds per hour. Based on 8,760 hours of operation per 12 consecutive month period, this limits PM emissions from the mixing and drying operations to 45.74 tons per year.

#### D.1.3 Particulate Matter 10 Microns (PM-10) [326 IAC 2-8-4]

Pursuant to 326 IAC 2-8-4, particulate matter 10 microns emissions from the aggregate mixing and drying operation shall not exceed 0.048 pound of PM-10 per ton of asphalt mix. This is equivalent to a PM-10 emission limit of 14.27 pounds per hour, including both filterable and condensable fractions based on a maximum throughput of 300 tons of asphalt mix per hour. Based on 8,760 hours of operation per 12 consecutive month period, this limits PM-10 emissions from the aggregate mixing and drying operation to 62.5 tons per year for a source-wide total potential to emit of less than 100 tons per year. Compliance with this limit will satisfy 326 IAC 2-8-4. Therefore, the Part 70 rules (326 IAC 2-7) do not apply.

#### D.1.4 Opacity [326 IAC 12] [40 CFR 60.90, Subpart I]

Pursuant to 326 IAC 12, (40 CFR Part 60.92, Subpart I) "Standards of Performance for Hot Mix Asphalt Facilities", the mixing and drying operations shall not discharge or cause the discharge into the atmosphere any gases which exhibit 20% opacity or greater.

#### D.1.5 Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 7-1.1-1][326 IAC 7-2-1]

- (a) Pursuant to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations), sulfur dioxide emissions from the 103.5 million Btu per hour burner for the aggregate dryer shall be limited to 0.5 pounds per million Btu heat input or a sulfur content of less than or equal to 0.5% when using distillate oil.

- (b) Pursuant to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations), sulfur dioxide emissions from the 103.5 million Btu per hour burner for the aggregate dryer shall be limited to 1.6 pounds per million Btu heat input or a sulfur content of less than or equal to 1.3 percent when using re-refined waste oil. The source has accepted a sulfur content limit of 0.75 percent for re-refined waste oil.
- (c) Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average.

**D.1.6 Re-refined Waste Oil and Equivalent Usage [326 IAC 2-8-4]**

---

Pursuant to 326 IAC 2-8-4(1), the following limits shall apply:

- (a) the sulfur content of the re-refined waste oil used in the 103.5 MMBtu per hour burner for the aggregate dryer shall not exceed 0.75 percent.
- (b) the usage of re-refined waste oil with a sulfur content of 0.75% and re-refined waste oil equivalents in the 103.5 MMBtu per hour burner for the aggregate dryer shall be limited to 1,704,671 U.S. gallons per twelve (12) consecutive month period, rolled on a monthly basis, so that SO<sub>2</sub> emissions are limited below 100 tons per year.
- (c) For purposes of determining compliance, the following shall apply:
  - (1) every MMCF of natural gas burned shall be equivalent to 5.4 gallons of re-refined waste oil based on SO<sub>2</sub> emissions, such that the total gallons of re-refined waste oil and re-refined waste oil equivalent input does not exceed the limit specified; and
  - (2) every 1,000 gallons of No. 2 distillate fuel oil burned shall be equivalent to 712 gallons of re-refined waste oil based on SO<sub>2</sub> emissions, such that the total gallons of re-refined waste oil and re-refined waste oil equivalent input does not exceed the limit specified.

Therefore, the requirements of 326 IAC 2-7 will not apply.

**D.1.7 Natural Gas and Equivalent Usage [326 IAC 2-8-4]**

---

Pursuant to 326 IAC 2-8-4(1), the following limits shall apply:

- (a) the usage of natural gas and natural gas equivalents in the 103.5 MMBtu per hour burner for the aggregate dryer shall be limited to 697.0 million cubic feet (MMcf) per twelve (12) consecutive month period, rolled on a monthly basis, so that NO<sub>x</sub> emissions are limited below 100 tons per year.
- (b) For purposes of determining compliance, the following shall apply:
  - (1) every 1,000 gallons of No. 2 distillate fuel oil burned shall be equivalent to 0.0857 MMcf of natural gas based on NO<sub>x</sub> emissions and 0.5 percent sulfur content of the fuel oil, such that the total input of natural gas and natural gas equivalent input does not exceed the limit specified.
  - (2) every 1,000 gallons of re-refined waste oil burned shall be equivalent to 0.0679 MMcf of natural gas based on NO<sub>x</sub> emissions and 0.75 percent sulfur content of the fuel oil, such that the total input of natural gas and natural gas equivalent input does not exceed the limit specified.

Therefore, the requirements of 326 IAC 2-7 will not apply.

**D.1.8 Preventive Maintenance Plan [326 IAC 2-8-4(9)]**

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and any control devices.

**Compliance Determination Requirements**

**D.1.9 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]**

- (a) During the period between 30 and 36 months after issuance of this permit, in order to demonstrate compliance with Conditions D.1.2, D.1.3, and D.1.4, the Permittee shall perform PM and PM-10 testing utilizing methods per 40 CFR Part 60 Appendix A, Method 5 for PM and methods as approved by the Commissioner for PM-10. PM-10 includes filterable and condensable PM-10.
- (b) Opacity testing utilizing 40 CFR Part 60 Appendix A, Method 9, to demonstrate compliance with the opacity limitation of Condition D.1.4.

This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C-Performance Testing.

**D.1.10 Sulfur Dioxide Emissions and Sulfur Content**

Compliance shall be determined utilizing one of the following options.

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pounds per million Btu heat input when burning No. 2 distillate fuel oil and 1.6 pounds per million Btu heat input when burning re-refined waste oil by:
  - (1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification; or
  - (2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
    - (A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
    - (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.
- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the 103.5 MMBtu per hour burner for the aggregate dryer, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to any of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

**D.1.11 Particulate Matter (PM)**

In order to comply with conditions D.1.2, D.1.3, and D.1.4, the baghouse for PM control shall be in operation and control emissions at all times when aggregate mixing and drying are in operation.

## **Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

### **D.1.12 Visible Emissions Notations**

---

- (a) Visible emission notations of the aggregate dryer, mixer, and burner baghouse stack exhaust, and the conveyors, transfer points, aggregate storage piles, and unpaved roads shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

### **D.1.13 Parametric Monitoring**

---

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the aggregate dryer, mixer, and burner, at least once per shift when the aggregate dryer, mixer, or burner is in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 1.0 and 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan-Failure to Take Response Steps. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

The inlet temperature to the baghouse shall be maintained within a range of 200-400 degrees Fahrenheit (°F) to prevent overheating of the bags and to prevent low temperatures from mudding up the bags. The thermocouple at the inlet has a temperature switch which automatically shuts the burner off if the high end range is exceeded. In the event that bag failure has occurred due to rupture, melting, etc., corrective action shall be taken. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the inlet temperature reading is outside of the above mentioned range for any one reading. The baghouse shall shutdown for visual inspection within 24 hours and bags shall be replaced as needed.

The instrument used for determining the pressure or temperature shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

### **D.1.14 Baghouse Inspections**

---

An inspection shall be performed each calendar quarter of all bags controlling the aggregate dryer, mixer, and burner when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting indoors. All defective bags shall be replaced.

#### D.1.15 Broken or Failed Bag Detection

---

In the event that bag failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.
- (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

### **Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

#### D.1.16 Record Keeping Requirements

---

- (a) To document compliance with Conditions D.1.5, D.1.6, and D.1.7, the Permittee shall maintain records in accordance with (1) through (7) below.
  - (1) Calendar dates covered in the compliance determination period;
  - (2) Actual re-refined waste oil and re-refined waste oil equivalent usage per month since last compliance determination period and equivalent SO<sub>2</sub> emissions;
  - (3) Actual natural gas and natural gas equivalent usage per month since last compliance determination period and equivalent NO<sub>x</sub> emissions;
  - (4) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period; and

If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:

- (5) Fuel supplier certifications.
- (6) The name of the fuel supplier; and
- (7) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

- (b) The Permittee shall maintain records sufficient to verify compliance with the procedures specified in condition D.1.10. Records shall be maintained for a period of five (5) years and shall be made available upon request by IDEM.

- (c) To document compliance with Condition D.1.12, the Permittee shall maintain records of visible emission notations of the aggregate dryer, mixer, and burner baghouse stack exhaust once per shift.
- (d) To document compliance with Condition D.1.13, the Permittee shall maintain the following:
  - (1) Weekly records of the following operational parameters during normal operation when venting to the atmosphere:
    - (A) Inlet and outlet differential static pressure;
    - (B) Inlet temperature to the baghouse; and
    - (C) Cleaning cycle operation.
- (e) To document compliance with Condition D.1.14, the Permittee shall maintain records of the results of the inspections required under Condition D.1.14.
- (f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### **D.1.17 Reporting Requirements**

---

A quarterly summary of the information to document compliance with Conditions D.1.6 and D.1.7 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

#### **D.1.18 Used Oil Requirements**

---

The waste oil burned in the aggregate dryer burner shall comply with the used oil requirements specified in 329 IAC 13 (Used Oil Management). Pursuant to 329 IAC 13-3-2 (Used Oil Specifications), used oil burned for energy recovery that is classified as off-specification used oil fuel shall comply with the provisions of 329 IAC 13-8 (Used Oil Burners Who Burn Off-specification Used Oil For Energy Recovery), including:

- (a) Receipt of an EPA identification number as outlined in 329 IAC 13-8-3 (Notification),
- (b) Compliance with the used oil storage requirements specified in 329 IAC 13-8-5 (Used Oil Storage), and
- (c) Maintaining records pursuant to 329 IAC 13-8-6 (Tracking).

The burning of mixtures of used oil and hazardous waste that is regulated under 329 IAC 3.1 is prohibited at this source.

## SECTION D.2 FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-8-4(10)]:

- (c) one (1) liquid asphalt storage tank, identified as Tank 11, with a maximum storage capacity of 20,000 gallons, exhausting at one (1) stack, identified as V-3;

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

#### D.2.1 Record Keeping Requirements [326 IAC 12][40 CFR 60.110b, Subpart Kb]

- (a) Pursuant to 40 CFR Part 60.110b, Subpart Kb (Standards of Performance for Volatile Organic Liquid Storage Vessels), the one (1) 20,000 gallon asphalt storage tank (Tank 11), with a vapor pressure of less than 15.0 kPa, is subject to 40 CFR Part 60.116b, paragraphs (a), (b), and (d) which require record keeping.
- (b) To document compliance with paragraph (a) above, the Permittee shall maintain permanent records at the source in accordance with (1) through (3) below:
- (1) the dimension of the storage vessel;
  - (2) an analysis showing the capacity of the storage vessel; and
  - (3) the true vapor pressure of each VOC stored in the 20,000 gallon asphalt storage tank (Tank 11), indicating that the maximum true vapor pressure of VOC is less than 15.0 kPa.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

## SECTION D.3 FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-8-4(10)]:

- (d) cold-mix (stockpile mix) asphalt storage piles.  
(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-8-4(1)]

#### D.3.1 Volatile Organic Compound (VOC) [326 IAC 2-8-4]

Gelled asphalt with VOC solvent liquid binder used in the production of cold mix asphalt shall not exceed 3,423 tons of VOC solvent per twelve (12) consecutive month period. This is equivalent to limiting the VOC emitted from solvent use to 85.57 tons per twelve (12) consecutive month period, based on the following definition:

Other asphalt with solvent binder, containing a maximum 25.9% of the liquid binder of VOC solvent and 2.5% by weight of the VOC solvent evaporating.

Therefore, the requirements of 326 IAC 2-7 will not apply.

### Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

#### D.3.2 Record Keeping Requirements

To document compliance with Condition D.3.1, the Permittee shall maintain records in accordance with (a) through (d) below. Records maintained for (a) through (d) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC emission limit established in Condition D.3.1.

- (a) Calendar dates covered in the compliance determination period;
- (b) Gelled asphalt binder usage per month since the last compliance determination period;
- (c) VOC solvent content by weight of the gelled asphalt binder used each month; and
- (d) Amount of VOC solvent used in the production of cold mix asphalt, and the amount of VOC emitted each month.

All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### D.3.3 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.3.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).



## **SECTION D.4 FACILITY OPERATION CONDITIONS**

### **Facility Description [326 IAC 2-8-4(10)]:**

#### Insignificant Activity

- (l) degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6 (parts washer using non-HAP Safety Kleen or Crystal Clean solvent);

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### **Emission Limitations and Standards [326 IAC 2-8-4(1)]**

#### **D.4.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]**

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), for cold cleaning operations constructed after January 1, 1980, the owner or operator shall:

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) Provide a permanent, conspicuous label summarizing the operation requirements;
- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE BRANCH**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
CERTIFICATION**

Source Name: Milestone Contractors, L.P.  
Source Address: 14413 West U.S. 40, Cambridge City, Indiana 47327  
Mailing Address: P.O. Box 421459, Indianapolis, Indiana 46242-1459  
FESOP No.: F177-14100-03232

**This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.**

Please check what document is being certified:

- 9 Annual Compliance Certification Letter
- 9 Test Result (specify) \_\_\_\_\_
- 9 Report (specify) \_\_\_\_\_
- 9 Notification (specify) \_\_\_\_\_
- 9 Affidavit (specify) \_\_\_\_\_
- 9 Other (specify) \_\_\_\_\_

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Phone:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE BRANCH  
P.O. Box 6015  
100 North Senate Avenue  
Indianapolis, Indiana 46206-6015  
Phone: 317-233-5674  
Fax: 317-233-5967**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
EMERGENCY OCCURRENCE REPORT**

Source Name: Milestone Contractors, L.P.  
Source Address: 14413 West U.S. 40, Cambridge City, Indiana 47327  
Mailing Address: P.O. Box 421459, Indianapolis, Indiana 46242-1459  
FESOP No.: F177-14100-03232

**This form consists of 2 pages**

**Page 1 of 2**

**9** This is an emergency as defined in 326 IAC 2-7-1(12)  
    CThe Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and  
    CThe Permittee must submit notice in writing or by facsimile within two (2) days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:

Control Equipment:

Permit Condition or Operation Limitation in Permit:

Description of the Emergency:

Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A

**Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency?    Y    N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO <sub>2</sub> , VOC, NO <sub>x</sub> , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

A certification is not required for this report.

## INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION

### FESOP Quarterly Report

Source Name: Milestone Contractors, L.P.  
Source Address: 14413 West U.S. 40, Cambridge City, Indiana 47327  
Mailing Address: P.O. Box 421459, Indianapolis, Indiana 46242-1459  
FESOP No.: F177-14100-03232  
Facility: 103.5 MMBtu per hour aggregate dryer burner  
Parameter: Re-refined waste oil and equivalent usage limit to limit SO<sub>2</sub> emissions  
Limit: the usage of re-refined waste oil with a sulfur content of 0.75% and re-refined waste oil equivalents in the 103.5 MMBtu per hour burner for the aggregate dryer shall be limited to 1,704,671 U.S. gallons per twelve (12) consecutive month period, rolled on a monthly basis. For purposes of determining compliance with this limit, the fuel equivalency ratios in condition D.1.6(c) shall be used.

YEAR: \_\_\_\_\_

Month	Column 1		Column 2		Column 1 + Column 2	
	Re-refined waste oil and equivalent usage this month (gallons)		Re-refined waste oil and equivalent usage previous 11 months (gallons)		12 month total Re-refined waste oil and equivalent usage (gallons)	
	Waste Oil	Equiv.	Waste Oil	Equiv.	Waste Oil	Equiv.
Month 1						
Month 2						
Month 3						

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.  
Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**FESOP Quarterly Report**

Source Name: Milestone Contractors, L.P.  
Source Address: 14413 West U.S. 40, Cambridge City, Indiana 47327  
Mailing Address: P.O. Box 421459, Indianapolis, Indiana 46242-1459  
FESOP No.: F177-14100-03232  
Facility: 103.5 MMBtu per hour aggregate dryer burner  
Parameter: Natural gas and equivalent usage limit to limit NOx emissions  
Limit: the usage of natural gas and natural gas equivalents in the 103.5 MMBtu per hour burner for the aggregate dryer shall be limited to 697.0 million cubic feet (MMcf) per twelve (12) consecutive month period, rolled on a monthly basis. For purposes of determining compliance with this limit, the fuel equivalency ratios in condition D.1.7(b) shall be used.

YEAR: \_\_\_\_\_

Month	Column 1		Column 2		Column 1 + Column 2	
	Natural gas and equivalent usage this month (MMCF)		Natural gas and equivalent usage previous 11 months (MMCF)		12 month total Natural gas and equivalent usage (MMCF)	
	Natural Gas	Equiv.	Natural Gas	Equiv.	Natural Gas	Equiv.
Month 1						
Month 2						
Month 3						

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.  
Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**FESOP Quarterly Report**

Source Name: Milestone Contractors, L.P.  
Source Address: 14413 West U.S. 40, Cambridge City, Indiana 47327  
Mailing Address: P.O. Box 421459, Indianapolis, Indiana 46242-1459  
FESOP No.: F177-14100-03232  
Facility: Cold Mix Asphalt Storage  
Parameter: VOC  
Limit: Gelled asphalt with VOC solvent liquid binder used in the production of cold mix asphalt shall not exceed 3,423 tons of VOC solvent per twelve (12) consecutive month period. This is equivalent to limiting the VOC emitted from solvent use to 85.57 tons per twelve (12) consecutive month period.

YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	Total VOC Solvent Usage This Month (tons)	Total VOC Solvent Usage Previous 11 Months (tons)	12 Month Total VOC Solvent Usage (tons)
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.

Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Milestone Contractors, L.P.  
Source Address: 14413 West U.S. 40, Cambridge City, Indiana 47327  
Mailing Address: P.O. Box 421459, Indianapolis, Indiana 46242-1459  
FESOP No.: F177-14100-03232

Months: \_\_\_\_\_ to \_\_\_\_\_ Year: \_\_\_\_\_

Page 1 of 2

This report is an affirmation that the source has met all the requirements stated in this permit. This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

**Permit Requirement** (specify permit condition #)

**Date of Deviation:**

**Duration of Deviation:**

**Number of Deviations:**

**Probable Cause of Deviation:**

**Response Steps Taken:**

**Permit Requirement** (specify permit condition #)

**Date of Deviation:**

**Duration of Deviation:**

**Number of Deviations:**

**Probable Cause of Deviation:**

**Response Steps Taken:**



<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	

<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	

<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	

Form Completed By: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

## **ATTACHMENT A**

### **ASPHALT PLANT SITE FUGITIVE DUST CONTROL PLAN**

Fugitive particulate matter emissions from paved roads, unpaved roads, and parking lots shall be controlled by one or more of the following methods:

Paved roads and parking lots:

- (1) power brooming while wet either from rain or application of water on an as needed basis.

Unpaved roads and parking lots:

- (1) paving with asphalt;
- (2) treating with emulsified asphalt on an as needed basis;
- (3) treating with water on an as needed basis;
- (4) double chip and seal the road surface and maintained on an as needed basis.

Fugitive particulate matter emissions from aggregate stockpiles shall be controlled by one or more of the following methods on an as needed basis:

- (1) maintaining minimum size and number of stock piles of aggregate;
- (2) treating around the stockpile area with emulsified asphalt;
- (3) treating around the stockpile area with water;
- (4) treating the stockpiles with water.

Fugitive particulate matter emissions from outdoor conveying of aggregates shall be controlled by the following method on an as needed basis:

- (1) applying water at the feed and the intermediate points.

Fugitive particulate matter emissions from the transfer of aggregates shall be controlled by one of the following methods:

- (1) minimize the vehicular distance between transfer points;
- (2) enclose the transfer points;
- (3) apply water on transfer points on an as needed basis.

Fugitive particulate matter emissions from transportation of aggregate by truck, front end loader, etc. shall be controlled by one of the following methods:

- (1) tarping the aggregate hauling vehicles;
- (2) maintain vehicle bodies in a condition to prevent leakage;
- (3) spray the aggregates with water;
- (4) maintain a 10 MPH speed limit in the yard.

Fugitive particulate matter emissions from the loading and unloading of aggregate shall be controlled by one of the following methods:

- (1) reduce free fall distance to a minimum;
- (2) reduce the rate of discharge of the aggregate;
- (3) spray the aggregate with water on an as needed basis.

## Indiana Department of Environmental Management Office of Air Quality

Addendum to the  
Technical Support Document for Federally Enforceable State Operating Permit  
(FESOP) Renewal

**Milestone Contractors, L.P.  
14413 West U.S. 40  
Cambridge City, Indiana 47327**

**F-177-14100, Plt ID-177-03232**

On January 14, 2002, the Office of Air Quality (OAQ) had a notice published in the Palladium Item, Richmond, Indiana, stating that Milestone Contractors, L.P. had applied for a Federally Enforceable State Operating Permit (FESOP) Renewal to operate a stationary asphalt pavement production plant with control. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

No comments were received from the source.

Upon further review, the OAQ has decided to make the following revisions to the permit (new language is bolded, deleted language is in strikeout):

1. Condition A.5, Prior Permit Conditions, was revised to implement the intent of the new rule 326 IAC 2-1.1-9.5 as follows:

### ~~A.5 Prior Permit Conditions~~

- 
- ~~(a) This permit shall be used as the primary document for determining compliance with applicable requirements established by previously issued permits.~~
  - ~~(b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, including any term or condition from a previously issued construction or operation permit, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued.~~

### **A.5 Prior Permits Superseded [326 IAC 2-1.1-9.5]**

- 
- (a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either**
    - (1) incorporated as originally stated,**
    - (2) revised, or**
    - (3) deleted****by this permit.**
  - (b) All previous registrations and permits are superseded by this permit.**

2. The IDEM, OAQ has re-named condition C.18 to better reflect the contents of the condition. The title of the condition is revised as follows:

C.18 Compliance Response Plan - ~~Failure to Take Response Steps~~ **Preparation, Implementation, Records, and Reports** [326 IAC 2-8-4] [326 IAC 2-8-5]

---

## **Indiana Department of Environmental Management Office of Air Quality**

### **Technical Support Document (TSD) for a Federally Enforceable State Operating Permit (FESOP) Renewal**

#### **Source Background and Description**

**Source Name:** Milestone Contractors, L.P.  
**Source Location:** 14413 West U.S. 40, Cambridge City, Indiana 47327  
**County:** Wayne  
**SIC Code:** 2951  
**Operation Permit No.:** F177-14100-03232  
**Permit Reviewer:** Trish Earls/EVP

The Office of Air Quality (OAQ) has reviewed a FESOP renewal application from Milestone Contractors, L.P. relating to the operation of a stationary asphalt pavement production plant. Milestone Contractors, L.P. was issued FESOP 177-5632-03178 (later changed to F177-5632-03232) on December 9, 1996.

#### **Permitted Emission Units and Pollution Control Equipment**

The source consists of the following permitted emission units and pollution control devices:

- (a) one (1) aggregate drum dryer and one (1) aggregate drum mixer, identified as emission unit Nos. 2a and 2b, with a maximum capacity of 300 tons per hour. The dryer is equipped with one (1) re-refined waste oil fired burner with a maximum rated capacity of 103.5 million (MM) British thermal units (Btu) per hour using natural gas and No. 2 distillate fuel oil as back-up fuels and one (1) baghouse for air pollution control, exhausting at one (1) stack, identified as S-1;
- (b) one (1) drag slat conveyor, one (1) Recycled Asphalt Pavement (RAP) conveyor, one (1) feed conveyor, one (1) scale conveyor, and one (1) screen;
- (c) one (1) liquid asphalt storage tank, identified as Tank 11, with a maximum storage capacity of 20,000 gallons, exhausting at one (1) stack, identified as V-3; and
- (d) cold-mix (stockpile mix) asphalt storage piles.

#### **Unpermitted Emission Units and Pollution Control Equipment**

There are no unpermitted facilities operating at this source during this review process.

#### **Insignificant Activities**

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) two (2) asphalt storage tank heaters, identified as emission unit Nos. 12 and 14, each burning natural gas or No. 2 distillate fuel oil, each rated at 1.4 and 0.864 MMBtu per hr, respectively, and each exhausting at two (2) stacks, identified as S-2A, S-2B, S-4A and S-4B, respectively;

- (b) one (1) re-refined waste oil storage tank, identified as Tank 10, with a maximum storage capacity of 20,000 gallons, exhausting at one (1) stack, identified as V-6;
- (c) one (1) liquid asphalt storage tank, identified as Tank 13, with a maximum storage capacity of 25,000 gallons, exhausting at one (1) stack, identified as V-5;
- (d) one (1) cold feed system consisting of six (6) compartments with a total aggregate holding capacity of 150 tons;
- (e) three (3) hot mix asphalt cement storage silos, each with a maximum storage capacity of 200 tons;
- (f) one (1) RAP feed bin;
- (g) aggregate storage piles, with a maximum storage capacity of 22,000 tons;
- (h) propane or liquefied petroleum gas, or butane-fired combustion sources with heat input equal to or less than 6.0 MMBtu per hr;
- (i) Volatile Organic Compound (VOC) and Hazardous Air Pollutant (HAP) storage tanks with capacity less than or equal to 1,000 gallons and annual throughput less than 12,000 gallons;
- (j) vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids;
- (k) application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings;
- (l) degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6 (parts washer using non-HAP Safety Kleen or Crystal Clean solvent);
- (m) cleaners and solvents having a vapor pressure equal to or less than 2 kPa; 15mm Hg; or 0.3 psi measured at 38 degrees C (100°F) or; having a vapor pressure equal to or less than 0.7 kPa; 5 mm Hg; or 0.1 psi measured at 20°C (68°); the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months;
- (n) closed loop heating and cooling systems;
- (o) paved and unpaved roads and parking lots with public access; and
- (p) a laboratory as defined in 326 IAC 2-7-1(20)(C).

### Existing Approvals

- (a) FESOP 177-5632-03178 (later changed to F177-5632-03232) issued on December 9, 1996; and expiring on December 9, 2001;
- (b) First Administrative Amendment 177-8404-03232, issued April 16, 1997;
- (c) Second Administrative Amendment 177-8418-03232, issued April 18, 1997;
- (d) Third Administrative Amendment 177-10478-03232, issued March 8, 1999;
- (e) First Minor Permit Revision 177-11573-03232, issued March 6, 2000; and
- (f) First Significant Permit Revision 177-13798-03232, issued April 30, 2001.

All conditions from previous approvals were incorporated into this FESOP, except the following conditions have been revised as described.

The re-refined waste oil and equivalents fuel usage limitation and the natural gas and equivalents fuel usage limitation in Conditions D.1.5 and D.1.6, now re-numbered D.1.6 and D.1.7, have been revised.

Reason for Change: U.S. EPA has revised many of the pollutant emission factors applicable to this source since the original FESOP issuance date of December 9, 1996 (see TSD Appendix A for detailed emission calculations). Since OAQ relies on the most currently available emissions data, facility emission rates have been updated to correspond to the new AP-42 emissions information. Since none of these changes affect source applicability with respect to 326 IAC 2-8, nor do they trigger any new requirements, the changes are made without replication herein.

### Enforcement Issue

There are no enforcement actions pending.

### Recommendation

The staff recommends to the Commissioner that the FESOP Renewal be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete FESOP Renewal application for the purposes of this review was received on March 8, 2001.

There was no notice of completeness letter mailed to the source.

### Emission Calculations

See Appendix A of this document for detailed emissions calculations (pages 1 through 13).

### Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source, excluding the emission limits that were contained in the previous FESOP.

Pollutant	Unrestricted Potential Emissions (tons/yr)
PM	greater than 250
PM-10	greater than 250
SO <sub>2</sub>	greater than 250
VOC	greater than 250
CO	less than 100
NO <sub>x</sub>	greater than 100, less than 250

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP	PTE (tons/year)
Arsenic	less than 10
Benzene	less than 10
Beryllium	less than 10
Cadmium	less than 10
Chromium	less than 10
Ethylbenzene	less than 10
Formaldehyde	less than 10
Hexane	less than 10
2,2,4 Trimethylpentane	less than 10
Lead	less than 10
Manganese	less than 10
Mercury	less than 10
Methyl Chloroform	less than 10
Nickel	less than 10
Selenium	less than 10
Toluene	less than 10
Total Polycyclic Organic Matter	less than 10
Xylene	less than 10
<b>TOTAL HAPs</b>	<b>less than 25</b>

- (a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of PM-10, SO<sub>2</sub>, VOC, and NO<sub>x</sub> are equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) Fugitive Emissions  
Since there are applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are counted toward determination of PSD and Emission Offset applicability.

#### Potential to Emit After Issuance

The source, issued a FESOP on December 9, 1996, has opted to remain a FESOP source, rather than apply for a Part 70 Operating Permit. The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered enforceable only after issuance of this Federally Enforceable State Operating Permit and only to the extent that the effect of the control equipment is made practically enforceable in the permit. Since the source has not constructed any new emission units, the source's potential to emit is based on the emission units included in the original FESOP. (F177-5632-03178 (later changed to F177-5632-03232); issued on December 9, 1996).

Process/emission unit	Potential to Emit After Issuance (tons/year)						
	PM	PM-10	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs
Aggregate Dryer and Burner <sup>(1)</sup>	45.74 <sup>(2)</sup>	62.50 <sup>(3)</sup>	93.97	13.38	29.27	97.58	13.32
Two (2) Tank Heaters	0.14	0.23	5.03	0.05	0.83	1.42	negligible



Process/emission unit	PM	PM-10	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs
Conveying/Handling	2.69	1.27	-	-	-	-	-
Unpaved Roads <sup>(4)</sup>	172.48	34.85	-	-	-	-	-
Aggregate Storage	0.37	0.13	-	-	-	-	-
Cold-mix VOC storage <sup>(5)</sup>	-	-	-	85.57	-	-	-
Total PTE After Issuance	221.42	99.0	99.0	99.0	30.10	99.0	13.32

- (1) Limited PTE reflects fuel usage limitations in conditions D.1.5 and D.1.6, now D.1.6 and D.1.7.  
 (2) Maximum allowable PM emissions pursuant to 40 CFR 60.90, Subpart I as listed in condition D.1.1, now D.1.2.  
 (3) Maximum allowable PM10 emissions in order to comply with 326 IAC 2-8 (FESOP) as listed in condition D.1.2, now D.1.3.  
 (4) Potential to emit after controls.  
 (5) Maximum allowable VOC emissions in order to comply with 326 IAC 2-8 (FESOP) as listed in condition D.2.2, now D.3.1

### County Attainment Status

The source is located in Wayne County.

Pollutant	Status
PM-10	attainment
SO <sub>2</sub>	maintenance/attainment
NO <sub>2</sub>	attainment
Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Wayne County has been designated as attainment or unclassifiable for ozone.

### Federal Rule Applicability

- (a) This source is subject to the New Source Performance Standard, 326 IAC 12, (40 CFR 60.90, Subpart I) because it meets the definition of a hot mix asphalt facility pursuant to the rule and it was constructed after June 11, 1973. This rule limits particulate matter emissions to 0.04 grains per dry standard cubic foot (gr/dscf) and also limits visible emissions to 20% opacity. This is equivalent to a particulate matter emission rate of 10.44 pounds per hour. The source will comply with this rule by using a baghouse to limit particulate matter emissions to less than 0.04 gr/dscf (see Appendix A, page 11 of 13, for detailed calculations).

- (b) The 20,000 gallon liquid asphalt storage tank (Tank 11) is subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.110b, Subpart Kb) "Standards of Performance for Volatile Organic Liquid Storage Vessels" since the tank was installed after July 23, 1984, and has a storage capacity greater than 40 cubic meters. However, since the tank has a storage capacity greater than 75 cubic meters but less than 151 cubic meters, and the liquid stored in the tank has a maximum true vapor pressure of less than 15.0 kPa, it is not subject to 40 CFR 116b paragraph (c). Also, because the liquid stored in the tank has a maximum true vapor pressure less than 27.6 kPa, it is not subject to the requirements of 40 CFR 60.112b paragraphs (a) or (b). The tank is subject to only 40 CFR Part 60.116b, paragraphs (a), (b), and (d) which require record keeping.
- (c) The 25,000 gallon liquid asphalt storage tank (Tank 13) and the 20,000 gallon re-refined waste oil storage tank are not subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.110b, Subpart Kb) "Standards of Performance for Volatile Organic Liquid Storage Vessels" because the tanks were installed before July 23, 1984.
- (d) The 25,000 gallon liquid asphalt storage tank (Tank 13) and the 20,000 gallon re-refined waste oil storage tank are not subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.110a, Subpart Ka) "Standards of Performance for Storage Vessels for Petroleum Liquids" because each tank has a storage capacity less than 40,000 gallons.
- (e) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 61) applicable to this source.
- (f) The parts washer, an insignificant activity, is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP), 326 IAC 20, (40 CFR 63.460 through 63.468, Subpart T), because this unit does not use a halogenated HAP cleaning solvent.

#### **State Rule Applicability - Entire Source**

##### **326 IAC 2-2 (Prevention of Significant Deterioration)**

This source is not subject to the requirements of this rule. This source was constructed prior to the rule applicability date of August 7, 1977, therefore, it is not subject to the requirements of the rule.

##### **326 IAC 2-6 (Emission Reporting)**

This source is not subject to 326 IAC 2-6 (Emission Reporting), which would require the source to submit an annual emission statement. Pursuant to this rule, any physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is enforceable. This source, which is located in Wayne County, has accepted federally enforceable operation conditions which limit emissions of PM-10, SO<sub>2</sub>, NO<sub>x</sub>, and VOC to below 100 tons per year per pollutant, therefore, 326 IAC 2-6 does not apply.

### 326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

### 326 IAC 2-8-4 (FESOP)

This source is subject to 326 IAC 2-8-4 (FESOP). Pursuant to this rule, the usage of re-refined waste oil with a sulfur content of 0.75% and re-refined waste oil equivalents shall be limited to 1,704,671 U.S. gallons per twelve (12) consecutive month period, rolled on a monthly basis, so that SO<sub>2</sub> emissions are limited to less than 100 tons per year. The usage of natural gas and natural gas equivalents shall be limited to 697.0 million cubic feet (MMcf) per twelve (12) consecutive month period, rolled on a monthly basis, so that NO<sub>x</sub> emissions are limited to less than 100 tons per year. The use of gelled asphalt with solvent liquid binder shall not exceed 3,423 tons of VOC solvent per twelve (12) consecutive month period, rolled on a monthly basis, so that VOC emissions are limited to less than 100 tons per year. Also, PM-10 emissions from the aggregate dryer shall be limited to 0.048 pound PM-10 per ton of asphalt mix equivalent to 14.27 pounds per hour based on a maximum throughput of 300 tons of asphalt mix per hour. The source will comply with the PM-10 emission limit by utilizing a baghouse for controlling PM-10 emissions to less than 14.27 pounds per hour from the aggregate dryer. Therefore, the requirements of 326 IAC 2-7 do not apply.

### 326 IAC 6-4 (Fugitive Dust Emissions)

This source is subject to 326 IAC 6-4 for fugitive dust emissions. Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions), fugitive dust shall not be visible crossing the boundary or property line of a source. Observances of visible emissions crossing property lines may be refuted by factual data expressed in 326 IAC 6-4-2(1), (2) or (3).

### 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)

This source is subject to 326 IAC 6-5 for fugitive particulate matter emissions. Pursuant to 326 IAC 6-5, for any new source which has not received all the necessary preconstruction approvals before December 13, 1985, a fugitive dust control plan must be submitted, reviewed and approved. The fugitive dust control plan for this source includes the following:

Fugitive particulate matter emissions from paved roads, unpaved roads, and parking lots shall be controlled by one or more of the following methods:

Paved roads and parking lots:

- (1) power brooming while wet either from rain or application of water on an as needed basis.

Unpaved roads and parking lots:

- (1) paving with asphalt;
- (2) treating with emulsified asphalt on an as needed basis;
- (3) treating with water on an as needed basis;
- (4) double chip and seal the road surface and maintained on an as needed basis.

Fugitive particulate matter emissions from aggregate stockpiles shall be controlled by one or more of the following methods on an as needed basis:

- (1) maintaining minimum size and number of stock piles of aggregate;
- (2) treating around the stockpile area with emulsified asphalt;
- (3) treating around the stockpile area with water;
- (4) treating the stockpiles with water.

Fugitive particulate matter emissions from outdoor conveying of aggregates shall be controlled by the following method on an as needed basis:

- (1) applying water at the feed and the intermediate points.

Fugitive particulate matter emissions from the transfer of aggregates shall be controlled by one of the following methods:

- (1) minimize the vehicular distance between transfer points;
- (2) enclose the transfer points;
- (3) apply water on transfer points on an as needed basis.

Fugitive particulate matter emissions from transportation of aggregate by truck, front end loader, etc. shall be controlled by one of the following methods:

- (1) tarping the aggregate hauling vehicles;
- (2) maintain vehicle bodies in a condition to prevent leakage;
- (3) spray the aggregates with water;
- (4) maintain a 10 MPH speed limit in the yard.

Fugitive particulate matter emissions from the loading and unloading of aggregate shall be controlled by one of the following methods:

- (1) reduce free fall distance to a minimum;
- (2) reduce the rate of discharge of the aggregate;
- (3) spray the aggregate with water on an as needed basis.

### **State Rule Applicability - Individual Facilities**

As a result of further review of the rule applicability criteria listed in 326 IAC 6-3-1, the rule applicability of 326 IAC 6-3-2 has changed as follows:

#### **326 IAC 6-3-2 (Process Operations)**

The aggregate mixing and drying operation is not subject to the requirements of 326 IAC 6-3-2. This rule does not apply if the limitation established in the rule is not consistent with applicable limitations in 326 IAC 6-1 or 326 IAC 12. Since the applicable PM emission limit established by 326 IAC 12, 40 CFR 60, Subpart I (10.44 pounds per hour), is less than the PM limit that would be established by 326 IAC 6-3-2 (63.0 pounds per hour, see Appendix A, page 11 of 13), the more stringent limit applies and the limit pursuant to 326 IAC 6-3-2 does not apply.

326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)

The sulfur dioxide emissions from the 103.5 MMBtu/hr burner burning distillate oil shall be limited to 0.5 lb/MMBtu heat input. This equates to a fuel oil sulfur content limit of 0.5%. Therefore, the sulfur content of the fuel must be less than or equal to 0.5% in order to comply with this rule (See Appendix A, Page 11 of 13 for detailed calculations). The source will comply with this rule by using No. 2 distillate oil with a sulfur content of 0.5% or less. The sulfur dioxide emissions from the 103.5 MMBtu/hr burner burning re-refined waste oil shall be limited to 1.6 lb/MMBtu/hr heat input. This equates to a fuel oil sulfur content limit of 1.3%. Therefore, the sulfur content of the fuel must be less than or equal to 1.3% in order to comply with this rule (See Appendix A, Page 11 of 13 for detailed calculations). The source will comply with this rule by using re-refined waste oil with a sulfur content of 0.75%.

The two (2) tank heaters rated at 1.4 and 0.864 MMBtu/hr, respectively, are not subject to the requirements of this rule because potential SO<sub>2</sub> emissions from these units are less than 25 tons per year.

326 IAC 7-2-1 (Sulfur Dioxide Reporting Requirements)

This source is subject to 326 IAC 7-2-1 (Reporting Requirements). This rule requires the source to submit to the Office of Air Quality upon request records of sulfur content, heat content, fuel consumption, and sulfur dioxide emission rates based on a calendar-month average.

326 IAC 7-4-4 (Wayne County Sulfur Dioxide Emission Limitations)

This source is not subject to 326 IAC 7-4-4 (Wayne County Sulfur Dioxide Emission Limitations). This rule specifies sulfur dioxide emission limitations in pounds per million Btu for sources and facilities specifically listed in the rule. This source is located in the attainment portion of the county and neither this source nor any of its facilities are listed, therefore, the requirements of this rule do not apply.

326 IAC 8-3-2 (Cold cleaner operation)

Pursuant to 326 IAC 8-3-1(a)(2), the parts washer, an insignificant activity, is subject to the requirements of 326 IAC 8-3-2 (Cold cleaner operation) since it was constructed after January 1, 1980. This parts washer is not subject to the requirements of 326 IAC 8-3-5 because the rule only applies to cold cleaner degreasers without a remote solvent reservoir. Since this degreaser does have a remote solvent reservoir, it is not subject to the requirements of 326 IAC 8-3-5. Pursuant to 326 IAC 8-3-2 the Permittee shall:

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) Provide a permanent, conspicuous label summarizing the operation requirements;
- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

326 IAC 8-5-2 (Miscellaneous Operations: Asphalt Paving)

This rule applies to any paving application constructed after January 1, 1980 located anywhere in the state. Since this source was constructed in 1976, prior to the rule applicability date, it is not subject to this rule.

329 IAC 13-8 (Used Oil Requirements)

- (a) Pursuant to 329 IAC 13-3-2 (Used Oil Specifications), used oil burned for energy recovery that is classified as off-specification used oil fuel shall comply with the provisions of 329 IAC 13-8 (Used Oil Burners Who Burn Off-specification Used Oil For Energy Recovery), including:
  - (1) Receipt of an EPA identification number as outlined in 329 IAC 13-8-3 (Notification),
  - (2) Compliance with the used oil storage requirements specified in 329 IAC 13-8-5 (Used Oil Storage), and
  - (3) Maintain records pursuant to 329 IAC 13-8-6 (Tracking).
- (b) The waste oil burned in the dryer/mixer burner shall comply with the used oil requirements specified in 329 IAC 13 (Used Oil Management). The burning of mixtures of used oil and hazardous waste that is regulated by 329 IAC 3.1 is prohibited at this source.

### Testing Requirements

All testing requirements from previous approvals were incorporated into this FESOP. This source is subject to 40 CFR 60, Subpart I (Standards of Performance for Hot Mix Asphalt Facilities), and shall comply with the particulate matter (PM) and opacity compliance testing requirements of the rule for the drum-mix plant. OAQ has also required PM-10 testing to demonstrate FESOP compliance.

Previous stack tests to comply with this requirement were conducted as follows:

- (a) PM, PM-10, and opacity testing was performed on August 3, 2000.

A new opacity testing requirement has been incorporated into the existing testing condition D.1.7, now re-numbered D.1.9, of this FESOP, and the condition has been re-written for greater clarity as follows (new language in bold and stricken language with a line through it):

**D.1.79 Particulate Matter Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]**

- (a) During the period between ~~4230~~ and ~~4836~~ months after issuance of this permit, **in order to demonstrate compliance with Conditions D.1.2, D.1.3, and D.1.4**, the Permittee shall perform PM and PM-10 testing utilizing methods per 40 CFR Part 60 Appendix A, Method 5 **for PM and methods**, ~~17, 40 CFR Part 51 Appendix M, Method 201, 201a, 202;~~ as approved by the Commissioner **for PM-10**. ~~This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration.~~ PM-10 includes filterable and condensable PM-10.
- (b) **Opacity testing utilizing 40 CFR Part 60 Appendix A, Method 9, to demonstrate compliance with the opacity limitation of Condition D.1.4.**

**This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C-Performance Testing.**

Justification for new testing requirement: The source is subject to the NSPS requirements of 40 CFR 60, Subpart I (Standards of Performance for Hot Mix Asphalt Facilities). As an affected source, compliance testing for opacity is required pursuant to the NSPS, but was not included in the testing condition in the original FESOP. This change completes the NSPS testing requirement.

## **Compliance Requirements**

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

All compliance requirements from previous approvals were incorporated into this FESOP, except the frequencies for visible emission notations and baghouse pressure drop readings have been changed to once per shift.

*Reason changed:* Compliance monitoring conditions are in the permit in order to ensure continuous compliance with the requirements. Baghouse failure can occur suddenly; therefore monitoring of baghouse operational parameters should be more frequent than weekly or even daily in such cases where a source operates more than one shift per day. The OAQ believes that changing visible emissions notations to once per operating shift is a reasonable requirement. Therefore, the requirements to perform visible emissions notations have been changed from daily to once per shift. This change likewise applies to the pressure drop readings. The compliance monitoring requirements applicable to this source are as follows:

1. The conveying, material transfer points, screening, unpaved roads, storage piles, mixing and drying operation have applicable compliance monitoring conditions as specified below:

- (a) Visible emissions notations of the aggregate dryer/burner baghouse stack exhaust, and the conveyors, transfer points, aggregate storage piles, and unpaved roads, shall be performed once per shift during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.
- (b) The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the aggregate dryer, mixer, and burner, at least once per shift when the aggregate dryer, mixer, and burner are in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 1.0 and 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan-Failure to Take Response Steps. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Failure to Take Response Steps, shall be considered a violation of this permit.
- (c) An inspection shall be performed each calendar quarter of all bags controlling the aggregate dryer/burner when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting indoors. All defective bags shall be replaced.
- (d) In the event that bag failure has been observed:
  - (1) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.



- (2) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

These monitoring conditions are necessary because the baghouse for the aggregate dryer, mixer, and burner must operate properly to ensure compliance with 326 IAC 12, 40 CFR 60.90, Subpart I (Standards of Performance for Hot Mix Asphalt Facilities) and 326 IAC 2-8 (FESOP).

### **Conclusion**

The operation of this asphalt pavement production plant shall be subject to the conditions of the attached proposed (FESOP No.: F177-14100-03232).

Company Name:

Milestone Contractors, L.P.

Plant Location:

14413 West U.S. 40, Cambridge City, Indiana 47327

County:

Wayne

Date Received:

March 8, 2000

Permit Reviewer:

Trish Earls

**\*\* aggregate dryer burner\*\***

The following calculations determine the amount of emissions created by natural gas combustion, from the aggregate dryer burner, based on 8,760 hours of operation and US EPA's AP-42, 5th Edition, Section 1.4 - Natural Gas Combustion, Tables 1.4-1 and 1.4-2.

<b>Criteria Pollutant:</b>	103.5 MMBtu/hr * 8,760 hr/yr	* Ef (lb/MMcf) = (ton/yr)
	1000 Btu/cf * 2,000 lb/ton	

<b>P M:</b>	1.9 lb/MMcf =	<b>0.86 ton/yr</b>
<b>P M-10:</b>	7.6 lb/MMcf =	<b>3.45 ton/yr</b>
<b>S O 2:</b>	0.6 lb/MMcf =	<b>0.27 ton/yr</b>
<b>N O x:</b>	280.0 lb/MMcf =	<b>126.93 ton/yr</b>
<b>V O C:</b>	5.5 lb/MMcf =	<b>2.49 ton/yr</b>
<b>C O:</b>	84.0 lb/MMcf =	<b>38.08 ton/yr</b>

The following calculations determine the amount of emissions created by the combustion of #2 distillate fuel oil

@ 0.5 % sulfur, from the aggregate dryer burner, based on 8,760 hours of use and US EPA's AP-42, 5th Edition, Section 1.3 - Fuel Oil Combustion, Tables 1.3-1, 1.3-2, and 1.3-3.

<b>Criteria Pollutant:</b>	103.5 MMBtu/hr * 8,760 hr/yr	* Ef (lb/1,000 gal) = (ton/yr)
	140,000 Btu/gal * 2,000 lb/ton	

<b>P M:</b>	2.0 lb/1000 gal =	<b>6.48 ton/yr</b>
<b>P M-10:</b>	3.3 lb/1000 gal =	<b>10.69 ton/yr</b>
<b>S O 2:</b>	78.5 lb/1000 gal =	<b>254.19 ton/yr</b>
<b>N O x:</b>	24.0 lb/1000 gal =	<b>77.71 ton/yr</b>
<b>V O C:</b>	0.20 lb/1000 gal =	<b>0.65 ton/yr</b>
<b>C O:</b>	5.0 lb/1000 gal =	<b>16.19 ton/yr</b>

The following calculations determine the amount of emissions created by re-refined waste oil

@ 0.75 % sulfur, 0.947 % ash, based on 8760 hours of use and US EPA's AP-42, 5th Edition, Section 1.11 - Waste Oil Combustion, Tables 1.11-1, 1.11-2, and 1.11-3.

<b>Criteria Pollutant:</b>	103.5 MMBtu/hr * 8760 hr/yr	* Ef (lb/1000 gal) = (ton/yr)
	120,000 Btu/gal * 2000 lb/ton	

<b>P M:</b>	60.6 lb/1000 gal =	<b>228.96 ton/yr</b>
<b>P M-10:</b>	48.3 lb/1000 gal =	<b>182.45 ton/yr</b>
<b>S O 2:</b>	110.3 lb/1000 gal =	<b>416.50 ton/yr</b>
<b>N O x:</b>	19.0 lb/1000 gal =	<b>71.78 ton/yr</b>
<b>V O C:</b>	1.0 lb/1000 gal =	<b>3.78 ton/yr</b>
<b>C O:</b>	5.0 lb/1000 gal =	<b>18.89 ton/yr</b>

The maximum potential emissions from the aggregate dryer burner due to fuel combustion are the following:

<b>Criteria Pollutant:</b>		<b>Worst Case Fuel</b>
<b>P M:</b>	<b>228.96 ton/yr</b>	Re-refined Waste Oil
<b>P M-10:</b>	<b>182.45 ton/yr</b>	Re-refined Waste Oil
<b>S O 2:</b>	<b>416.50 ton/yr</b>	Re-refined Waste Oil
<b>N O x:</b>	<b>126.93 ton/yr</b>	Natural Gas
<b>V O C:</b>	<b>3.78 ton/yr</b>	Re-refined Waste Oil

**C O:**      **38.08 ton/yr**

Natural Gas

**\*\* miscellaneous combustion sources\*\***

This facility possesses a two (2) asphalt storage tank heaters rated at 1.4 and 0.864 MMBtu/hr, respectively, which can combust natural gas or No. 2 distillate fuel oil.

The following calculations determine the amount of emissions created by the combustion of #2 distillate fuel oil

@ 0.5 % sulfur, based on 8,760 hours of use and US EPA's AP-42, 5th Edition, Section 1.3 - Fuel Oil Combustion, Tables 1.3-1, 1.3-2, and 1.3-3.

**Criteria Pollutant:** 
$$\frac{2.264 \text{ MMBtu/hr} \times 8,760 \text{ hr/yr}}{140,000 \text{ Btu/gal} \times 2,000 \text{ lb/ton}} \times \text{Ef (lb/1,000 gal)} = (\text{ton/yr})$$

<b>P M:</b>	2.0 lb/1000 gal =	<b>0.14 ton/yr</b>
<b>P M-10:</b>	3.3 lb/1000 gal =	<b>0.23 ton/yr</b>
<b>S O 2:</b>	71.0 lb/1000 gal =	<b>5.03 ton/yr</b>
<b>N O x:</b>	20.0 lb/1000 gal =	<b>1.42 ton/yr</b>
<b>V O C:</b>	0.34 lb/1000 gal =	<b>0.02 ton/yr</b>
<b>C O:</b>	5.0 lb/1000 gal =	<b>0.35 ton/yr</b>

The following calculations determine the amount of emissions created by natural gas combustion, based on 8,760 hours of operation and US EPA's AP-42, 5th Edition, Section 1.4 - Natural Gas Combustion, Tables 1.4-1 and 1.4-2.

**Criteria Pollutant:** 
$$\frac{2.264 \text{ MMBtu/hr} \times 8,760 \text{ hr/yr}}{1000 \text{ Btu/cf} \times 2,000 \text{ lb/ton}} \times \text{Ef (lb/MMcf)} = (\text{ton/yr})$$

<b>P M:</b>	1.9 lb/MMcf =	<b>0.02 ton/yr</b>
<b>P M-10:</b>	7.6 lb/MMcf =	<b>0.08 ton/yr</b>
<b>S O 2:</b>	0.6 lb/MMcf =	<b>0.01 ton/yr</b>
<b>N O x:</b>	100.0 lb/MMcf =	<b>0.99 ton/yr</b>
<b>V O C:</b>	5.5 lb/MMcf =	<b>0.05 ton/yr</b>
<b>C O:</b>	84.0 lb/MMcf =	<b>0.83 ton/yr</b>

The maximum potential emissions of the miscellaneous combustion sources are the following:

<b>Criteria Pollutant:</b>		<b>Worst Case Fuel</b>
<b>P M:</b>	<b>0.14 ton/yr</b>	No. 2 Fuel Oil
<b>P M-10:</b>	<b>0.23 ton/yr</b>	No. 2 Fuel Oil
<b>S O 2:</b>	<b>5.03 ton/yr</b>	No. 2 Fuel Oil
<b>N O x:</b>	<b>1.42 ton/yr</b>	No. 2 Fuel Oil
<b>V O C:</b>	<b>0.05 ton/yr</b>	Natural Gas
<b>C O:</b>	<b>0.83 ton/yr</b>	Natural Gas

**\*\* aggregate drying: drum-mix plant \*\***

The following calculations determine the amount of worst case emissions created by aggregate drying before controls, based on 8,760 hours of use and USEPA's AP-42, 5th Edition, Section 11.1 - Hot Mix Asphalt Plants, Tables 11.1-5 and 11.1-1 for a drum mix dryer which has the capability of combusting either fuel oil or natural gas:

Pollutant: 
$$\frac{\text{Ef lb/ton} \times 300 \text{ ton/hr} \times 8,760 \text{ hr/yr}}{2,000 \text{ lb/ton}}$$

**Criteria Pollutant:**

<b>P M:</b>	28 lb/ton =	<b>36,792.00 ton/yr</b>
<b>P M-10:</b>	6.5 lb/ton =	<b>8,541.00 ton/yr</b>
<b>VOC:</b>	8.72E-03 lb/ton =	<b>11.46 ton/yr</b>

The VOC emission factor represents the sum of the HAP emission factors from the dryer which were assumed to be VOC.

**\*\* conveying / handling \*\***

The following calculations determine the amount of emissions created by material handling, based on 8,760 hours of use and AP-42, Section 13.2.4, Equation 1. The emission factor for calculating PM emissions is calculated as follows:

PM-10 Emissions:

$$E = k \cdot (0.0032) \cdot ((U/5)^{1.3} / (M/2)^{1.4})$$

$$= 9.69E-04 \text{ lb PM-10/ton}$$

$$2.05E-03 \text{ lb PM/ton}$$

where k = 0.35 (particle size multiplier for <10um)  
0.74 (particle size multiplier for <30um)

U = 12 mph mean wind speed

M = 5.0 material moisture content (%)

$$\frac{300 \text{ ton/hr} \cdot 8,760 \text{ hrs/yr} \cdot E_f \text{ (lb/ton of material)}}{2,000 \text{ lb/ton}} = (\text{ton/yr})$$

**Total PM 10 Emissions: 1.27 tons/yr**  
**Total PM Emissions: 2.69 tons/yr**

**\*\* unpaved roads \*\***

The following calculations determine the amount of emissions created by vehicle traffic on unpaved roads, based on 8,760 hours of use and USEPA's AP-42, 5th Edition, Section 13.2.2.2.

I. Trucks

$$\begin{aligned} & 6 \text{ trip/hr} \times \\ & 0.1 \text{ mile/trip} \times \\ & 2 \text{ (round trip) } \times \\ & 8,760 \text{ hr/yr} = 10512 \text{ miles per year} \end{aligned}$$

$$E_f = k \cdot [(s/12)^{0.8} \cdot (W/3)^b] / [(M/0.2)^c \cdot ((365-p)/365) \cdot (S/15)]$$

$$= 1.26 \text{ lb PM-10/mile}$$

$$= 5.96 \text{ lb PM/mile}$$

where k = 2.6 (particle size multiplier for PM-10) (k=10 for PM-30 or TSP)

s = 4.8 mean % silt content of unpaved roads

b = 0.4 Constant for PM-10 (b = 0.5 for PM-30 or TSP)

c = 0.3 Constant for PM-10 (c = 0.4 for PM-30 or TSP)

W = 24 tons average vehicle weight

M = 0.2 surface material moisture content, % (default is 0.2 for dry conditions)

S = 10.0 mph speed limit

p = 125.0 number of days with at least 0.01 in. of precipitation per year

$$\text{PM-10: } \frac{1.26 \text{ lb/mi} \times 10512 \text{ mi/yr}}{2000 \text{ lb/ton}} = 6.61 \text{ tons/yr}$$

$$\text{PM: } \frac{5.96 \text{ lb/mi} \times 10512 \text{ mi/yr}}{2000 \text{ lb/ton}} = 31.31 \text{ tons/yr}$$

**\*\* unpaved roads \*\***

**II. Triaxle Dump Trucks**

1.74 trip/hr x  
0.35 mile/trip x  
2 (round trip ) x  
8,760 hr/yr = 10669.68 miles per year

$$E_f = k \cdot [(s/12)^{0.8}] \cdot [(W/3)^b] / [(M/0.2)^c] \cdot [(365-p)/365] \cdot (S/15)$$

$$= 1.26 \text{ lb PM-10/mile}$$

$$= 5.96 \text{ lb PM/mile}$$

where k = 2.6 (particle size multiplier for PM-10) (k=10 for PM-30 or TSP)  
s = 4.8 mean % silt content of unpaved roads  
b = 0.4 Constant for PM-10 (b = 0.5 for PM-30 or TSP)  
c = 0.3 Constant for PM-10 (c = 0.4 for PM-30 or TSP)  
W = 24 tons average vehicle weight  
M = 0.2 surface material moisture content, % (default is 0.2 for dry conditions)  
S = 10.0 mph speed limit  
p = 125.0 number of days with at least 0.01 in. of precipitation per year

**PM-10:**  $\frac{1.26 \text{ lb/mi} \times 10669.7 \text{ mi/yr}}{2000 \text{ lb/ton}} = \mathbf{6.71 \text{ tons/yr}}$

**PM:**  $\frac{5.96 \text{ lb/mi} \times 10669.7 \text{ mi/yr}}{2000 \text{ lb/ton}} = \mathbf{31.78 \text{ tons/yr}}$

**III. Triaxle Dump Trucks**

10.71 trip/hr x  
0.078 mile/trip x  
2 (round trip ) x  
8,760 hr/yr = 14635.8576 miles per year

$$E_f = k \cdot [(s/12)^{0.8}] \cdot [(W/3)^b] / [(M/0.2)^c] \cdot [(365-p)/365] \cdot (S/15)$$

$$= 1.26 \text{ lb PM-10/mile}$$

$$= 5.96 \text{ lb PM/mile}$$

where k = 2.6 (particle size multiplier for PM-10) (k=10 for PM-30 or TSP)  
s = 4.8 mean % silt content of unpaved roads  
b = 0.4 Constant for PM-10 (b = 0.5 for PM-30 or TSP)  
c = 0.3 Constant for PM-10 (c = 0.4 for PM-30 or TSP)  
W = 24 tons average vehicle weight  
M = 0.2 surface material moisture content, % (default is 0.2 for dry conditions)  
S = 10.0 mph speed limit  
p = 125.0 number of days with at least 0.01 in. of precipitation per year

**PM-10:**  $\frac{1.26 \text{ lb/mi} \times 14635.9 \text{ mi/yr}}{2000 \text{ lb/ton}} = \mathbf{9.21 \text{ tons/yr}}$

**PM:**  $\frac{5.96 \text{ lb/mi} \times 14635.9 \text{ mi/yr}}{2000 \text{ lb/ton}} = \mathbf{43.59 \text{ tons/yr}}$

**\*\* unpaved roads \*\***

**IV. Tandem Axle Dump Trucks**

2 trip/hr x  
0.078 mile/trip x  
2 (round trip ) x  
8,760 hr/yr =

2733.12 miles per year

Ef = k\*[(s/12)^0.8]\*[(W/3)^b]/[(M/0.2)^c]\*[(365-p)/365]\*(S/15)  
= 1.10 lb PM-10/mile  
= 5.01 lb PM/mile  
where k = 2.6 (particle size multiplier for PM-10) (k=10 for PM-30 or TSP)  
s = 4.8 mean % silt content of unpaved roads  
b = 0.4 Constant for PM-10 (b = 0.5 for PM-30 or TSP)  
c = 0.3 Constant for PM-10 (c = 0.4 for PM-30 or TSP)  
W = 17 tons average vehicle weight  
M = 0.2 surface material moisture content, % (default is 0.2 for dry conditions)  
S = 10.0 mph speed limit  
p = 125.0 number of days with at least 0.01 in. of precipitation per year

PM-10: 1.10 lb/mi x 2733.12 mi/yr = 1.50 tons/yr  
2000 lb/ton

PM: 5.01 lb/mi x 2733.12 mi/yr = 6.85 tons/yr  
2000 lb/ton

**V. Single Axle Dump Trucks**

5.63 trip/hr x  
0.078 mile/trip x  
2 (round trip ) x  
8,760 hr/yr =

7693.7328 miles per year

Ef = k\*[(s/12)^0.8]\*[(W/3)^b]/[(M/0.2)^c]\*[(365-p)/365]\*(S/15)  
= 0.92 lb PM-10/mile  
= 4.03 lb PM/mile  
where k = 2.6 (particle size multiplier for PM-10) (k=10 for PM-30 or TSP)  
s = 4.8 mean % silt content of unpaved roads  
b = 0.4 Constant for PM-10 (b = 0.5 for PM-30 or TSP)  
c = 0.3 Constant for PM-10 (c = 0.4 for PM-30 or TSP)  
W = 11 tons average vehicle weight  
M = 0.2 surface material moisture content, % (default is 0.2 for dry conditions)  
S = 10.0 mph speed limit  
p = 125.0 number of days with at least 0.01 in. of precipitation per year

PM-10: 0.92 lb/mi x 7693.73 mi/yr = 3.54 tons/yr  
2000 lb/ton

PM: 4.03 lb/mi x 7693.73 mi/yr = 15.51 tons/yr  
2000 lb/ton

**\*\* unpaved roads \*\***

**VI. Front End Loader**

$$\begin{aligned}
 & 3.23 \text{ trip/hr} \times \\
 & 0.0386 \text{ mile/trip} \times \\
 & 2 \text{ (round trip) } \times \\
 & 8,760 \text{ hr/yr} = 2184.35856 \text{ miles per year}
 \end{aligned}$$

$$\begin{aligned}
 E_f &= k \cdot [(s/12)^{0.8}] \cdot [(W/3)^b] / [(M/0.2)^c] \cdot [(365-p)/365] \cdot (S/15) \\
 &= 1.73 \text{ lb PM-10/mile} \\
 &= 8.85 \text{ lb PM/mile}
 \end{aligned}$$

where k = 2.6 (particle size multiplier for PM-10) (k=10 for PM-30 or TSP)  
s = 4.8 mean % silt content of unpaved roads  
b = 0.4 Constant for PM-10 (b = 0.5 for PM-30 or TSP)  
c = 0.3 Constant for PM-10 (c = 0.4 for PM-30 or TSP)  
W = 53 tons average vehicle weight  
M = 0.2 surface material moisture content, % (default is 0.2 for dry conditions)  
S = 10.0 mph speed limit  
p = 125.0 number of days with at least 0.01 in. of precipitation per year

$$\text{PM-10: } \frac{1.73 \text{ lb/mi} \times 2184.36 \text{ mi/yr}}{2000 \text{ lb/ton}} = 1.89 \text{ tons/yr}$$

$$\text{PM: } \frac{8.85 \text{ lb/mi} \times 2184.36 \text{ mi/yr}}{2000 \text{ lb/ton}} = 9.67 \text{ tons/yr}$$

**VII. Front End Loader**

$$\begin{aligned}
 & 22.35 \text{ trip/hr} \times \\
 & 0.119 \text{ mile/trip} \times \\
 & 2 \text{ (round trip) } \times \\
 & 8,760 \text{ hr/yr} = 46597.068 \text{ miles per year}
 \end{aligned}$$

$$\begin{aligned}
 E_f &= k \cdot [(s/12)^{0.8}] \cdot [(W/3)^b] / [(M/0.2)^c] \cdot [(365-p)/365] \cdot (S/15) \\
 &= 1.73 \text{ lb PM-10/mile} \\
 &= 8.85 \text{ lb PM/mile}
 \end{aligned}$$

where k = 2.6 (particle size multiplier for PM-10) (k=10 for PM-30 or TSP)  
s = 4.8 mean % silt content of unpaved roads  
b = 0.4 Constant for PM-10 (b = 0.5 for PM-30 or TSP)  
c = 0.3 Constant for PM-10 (c = 0.4 for PM-30 or TSP)  
W = 53 tons average vehicle weight  
M = 0.2 surface material moisture content, % (default is 0.2 for dry conditions)  
S = 10.0 mph speed limit  
p = 125.0 number of days with at least 0.01 in. of precipitation per year

$$\text{PM-10: } \frac{1.73 \text{ lb/mi} \times 46597.1 \text{ mi/yr}}{2000 \text{ lb/ton}} = 40.24 \text{ tons/yr}$$

$$\text{PM: } \frac{8.85 \text{ lb/mi} \times 46597.1 \text{ mi/yr}}{2000 \text{ lb/ton}} = 206.24 \text{ tons/yr}$$

**Total PM Emissions From Unpaved Roads = 344.96 tons/yr**

**Total PM-10 Emissions From Unpaved Roads = 69.69 tons/yr**



**\*\* storage \*\***

The following calculations determine the amount of emissions created by wind erosion of storage stockpiles, based on 8,760 hours of use and USEPA's AP-42 (Pre 1983 Edition), Section 11.2.3.

Material	Silt Content (wt %)	Pile Size (acres)	Storage Capacity (tons)	P M Emissions tons/yr	P M-10 Emissions tons/yr
Sand	1.1	NA *	NA *	0.00	0.00
Gravel	0.5	NA *	NA *	0.00	0.00
Stone	1.2	1.010	22,000	0.26	0.09
Slag	0.8	0.215	5,000	0.04	0.01
RAP	0.2	1.940	15,000	0.08	0.03
<b>Total</b>				<b>0.37</b>	<b>0.13</b>

\* Sand and gravel piles owned by supplier.

Sample Calculation:

$$\begin{aligned}
 E_f &= 1.7 \cdot (s/1.5) \cdot (365-p)/235 \cdot (f/15) \\
 &= 1.39 \text{ lb/acre/day} \\
 \text{where } s &= 1.2 \% \text{ silt} \\
 p &= 125 \text{ days of rain greater than or equal to 0.01 inches} \\
 f &= 15 \% \text{ of wind greater than or equal to 12 mph} \\
 E_p (\text{storage}) &= E_f \cdot sc \cdot (20 \text{ cuft/ton}) \cdot (365 \text{ day/yr}) \\
 &\quad (2.000 \text{ lb/ton}) \cdot (43,560 \text{ sqft/acre}) \cdot (10 \text{ ft}) \\
 \text{where } sc &= 22,000 \text{ tons storage capacity} \\
 PM &= 0.26 \text{ tons/yr} \quad P M-10: 35\% \text{ of } PM = 0.09 \text{ tons/yr}
 \end{aligned}$$

**\*\*cold mix VOC storage emissions \*\***

The following calculations determine the amount of VOC emissions created by the application of stockpile mix containing gelled asphalt, of which is 2.5% by weight of VOC is evaporated, based on 8,760 hours of use.

$$\begin{aligned}
 \text{VOC Emission Factor} &= 0.025 \text{ weight percent flash-off of cold mix} \\
 \text{Potential Binder Throughput (tons/yr)} &= 2,628,000 \text{ tons/yr stockpile mix}
 \end{aligned}$$

$$\begin{aligned}
 \text{Potential VOC Emissions (tons/yr)} &= \text{Potential Throughput (tons/yr)} \cdot \text{wt percent flash-off} \\
 \text{Potential VOC Emissions} &= 657.00 \text{ tons/yr}
 \end{aligned}$$

**\*\* summary of source emissions before controls \*\***

Criteria Pollutants:

<b>P M:</b>	<b>37,369.13 ton/yr</b>	
<b>P M-10:</b>	<b>8,794.79 ton/yr</b>	
<b>S O 2:</b>	<b>421.53 ton/yr</b>	
<b>N O x:</b>	<b>128.35 ton/yr</b>	
<b>V O C:</b>	<b>672.29 ton/yr</b>	(VOCs include HAPs from aggregate drying operation)
<b>C O:</b>	<b>38.91 ton/yr</b>	

**\*\* source emissions after controls \*\***

Pursuant to the FESOP program, this facility must limit PM-10, SO<sub>2</sub>, NO<sub>x</sub> and VOC emissions to less than 100.0 tons per year. Consequently, SO<sub>2</sub> emissions from the aggregate dryer must be limited to 93.97 tons per year (99.0 ton/yr - 5.03 ton/yr from the tank heaters). Also, NO<sub>x</sub> emissions from the aggregate dryer must be limited to 97.58 tons per year (99.0 tons/yr - 1.42 tons/yr from the tank heaters).

\* Emissions of PM and PM-10 from aggregate drying operations are controlled with a 99.880 % control efficiency.

The following calculations determine the amount of emissions created by natural gas combustion based on a fuel usage limitation of 697,000,000 cf

**Natural Gas:**  $\frac{697,000 \text{ MMcf/yr}}{2,000 \text{ lb/ton}}$  \* Ef (lb/MMcf) = (ton/yr)

<b>P M:</b>	1.9 lb/MMcf =	<b>7.9E-04 ton/yr *</b>
<b>P M-10:</b>	7.6 lb/MMcf =	<b>3.2E-03 ton/yr *</b>
<b>S O 2:</b>	0.6 lb/MMcf =	<b>0.21 ton/yr</b>
<b>N O x:</b>	280.0 lb/MMcf =	<b>97.58 ton/yr</b>
<b>V O C:</b>	5.5 lb/MMcf =	<b>1.92 ton/yr</b>
<b>C O:</b>	84.0 lb/MMcf =	<b>29.27 ton/yr</b>

The following calculations determine the amount of emissions created by No.2 distillate fuel oil @ 0.5 % sulfur based on a fuel usage limitation of 2,394,140 gal/yr:

**No. 2 Distillate Oil:**  $\frac{2,394,140 \text{ gal/yr}}{2,000 \text{ lb/ton}}$  \* Ef (lb/1,000 gal) = (ton/yr)

<b>P M:</b>	2.0 lb/1000 gal =	<b>2.9E-03 ton/yr *</b>
<b>P M-10:</b>	3.3 lb/1000 gal =	<b>4.7E-03 ton/yr *</b>
<b>S O 2:</b>	78.5 lb/1000 gal =	<b>93.97 ton/yr</b>
<b>N O x:</b>	24.0 lb/1000 gal =	<b>28.73 ton/yr</b>
<b>V O C:</b>	0.2 lb/1000 gal =	<b>0.24 ton/yr</b>
<b>C O:</b>	5.0 lb/1000 gal =	<b>5.99 ton/yr</b>

The following calculations determine the amount of emissions created by re-refined waste oil @ 0.75 % sulfur based on a fuel usage limitation of 1,704,671 gal/yr:

**Waste Oil:**  $\frac{1,704,671 \text{ gal/yr}}{2000 \text{ lb/ton}}$  \* Ef (lb/1000 gal) = (ton/yr)

<b>P M:</b>	60.6 lb/1000 gal =	<b>0.06 ton/yr *</b>
<b>P M-10:</b>	48.3 lb/1000 gal =	<b>0.05 ton/yr *</b>
<b>S O 2:</b>	110.3 lb/1000 gal =	<b>93.97 ton/yr</b>
<b>N O x:</b>	19.0 lb/1000 gal =	<b>16.19 ton/yr</b>
<b>V O C:</b>	1.0 lb/1000 gal =	<b>0.85 ton/yr</b>
<b>C O:</b>	5.0 lb/1000 gal =	<b>4.26 ton/yr</b>

**Criteria Pollutant:**

<b>P M:</b>	<b>0.06 ton/yr *</b>	<b>Worst Case Fuel</b>
<b>P M-10:</b>	<b>0.05 ton/yr *</b>	Re-refined Waste Oil
<b>S O 2:</b>	<b>93.97 ton/yr</b>	Re-refined Waste Oil
<b>N O x:</b>	<b>97.58 ton/yr</b>	No. 2 Fuel Oil / Re-refined Waste Oil
<b>V O C:</b>	<b>1.92 ton/yr</b>	Natural Gas
<b>C O:</b>	<b>29.27 ton/yr</b>	Natural Gas

**\*\* source emissions after controls \*\***

**Fuel Usage Limitations**

Fuel: Natural gas

$$\frac{97.58 \text{ tons NOx/year limited}}{126.93 \text{ tons NOx/year potential}} * 906.660 \frac{\text{MMCF}}{\text{year potential}} = 697.00 \frac{\text{MMCF}}{\text{year limited}}$$

Fuel: #2 distillate fuel oil

$$\frac{93.97 \text{ tons SO2/year limited}}{254.19 \text{ tons SO2/year potential}} * 6476.14 \frac{\text{Kgals}}{\text{year potential}} = 2394.140 \frac{\text{Kgals}}{\text{year limited}}$$

Fuel: re-refined waste oil

$$\frac{93.97 \text{ tons SO2/year limited}}{416.50 \text{ tons SO2/year potential}} * 7555.50 \frac{\text{Kgals}}{\text{year potential}} = 1704.671 \frac{\text{Kgals}}{\text{year limited}}$$

Fuel equivalence for natural gas is determined from the limiting pollutant, NOx, as follows:

$$\frac{24.0 \text{ lb/1000 gal}}{280.0 \text{ lb/MMcf}} = 0.0857 \text{ million cubic feet (MMcf) per kgal No. 2 distillate oil (i.e., every 1000 gallons of No. 2 oil burned is equivalent to 0.0857 MMcf of natural gas burned, based on NOx emissions.)}$$

$$\frac{19.0 \text{ lb/1000 gal}}{280.0 \text{ lb/MMcf}} = 0.0679 \text{ million cubic feet (MMcf) per kgal waste oil (i.e., every 1000 gallons of waste oil burned is equivalent to 0.0679 MMcf of natural gas burned, based on NOx emissions.)}$$

Fuel equivalence for re-refined waste oil is determined from the limiting pollutant, SO2, as follows:

$$\frac{0.6 \text{ lb/MMcf}}{110.3 \text{ lb/1000 gal}} = 5.4 \text{ gallons per million cubic feet (MMcf) natural gas (i.e., every 1 MMcf natural gas burned is equivalent to 5.4 gallons of oil burned, based on SO2 emissions)}$$

$$\frac{78.5 \text{ lb/1000 gal}}{110.3 \text{ lb/1000 gal}} = 712.0 \text{ gallons per 1000 gallons No. 2 distillate oil (i.e., every 1000 gallons of No. 2 oil burned is equivalent to 712 gallons of waste oil burned, based on SO2 emission)}$$

**\*\* source emissions after controls \*\***

tank heaters:		nonfugitive	
<b>P M:</b>	0.14 ton/yr x	100% emitted after controls =	<b>0.14 ton/yr</b>
<b>P M-10:</b>	0.23 ton/yr x	100% emitted after controls =	<b>0.23 ton/yr</b>
aggregate drying:		nonfugitive	
<b>P M:</b>	36,792 ton/yr x	0.12% emitted after controls =	<b>44.15 ton/yr</b>
<b>P M-10:</b>	8,541 ton/yr x	0.12% emitted after controls =	<b>10.25 ton/yr</b>
<b>VOC:</b>	11.46 ton/yr x	100% emitted after controls =	<b>11.46 ton/yr</b>
conveying & handling:		fugitive	
<b>P M:</b>	2.69 ton/yr x	50% emitted after controls =	<b>1.35 ton/yr</b>
<b>P M-10:</b>	1.27 ton/yr x	50% emitted after controls =	<b>0.64 ton/yr</b>
unpaved roads:		fugitive	
<b>P M:</b>	344.96 ton/yr x	50% emitted after controls =	<b>172.48 ton/yr</b>
<b>P M-10:</b>	69.69 ton/yr x	50% emitted after controls =	<b>34.85 ton/yr</b>
storage piles:		fugitive	
<b>P M:</b>	0.37 ton/yr x	50% emitted after controls =	<b>0.19 ton/yr</b>
<b>P M-10:</b>	0.13 ton/yr x	50% emitted after controls =	<b>0.07 ton/yr</b>
cold mix VOC storage:		fugitive	
<b>VOC:</b>	657.00 ton/yr x	13% emitted after controls =	<b>85.57 ton/yr*</b>

\* This is equivalent to 3,423 tons of gelled asphalt binder solvent used per year based on 2.5% of VOC solvent evaporating.

**\*\* summary of source emissions after controls \*\***

Criteria Pollutant:	Non-Fugitive	Fugitive	Total
<b>PM:</b>	<b>44.35 ton/yr</b>	<b>174.01 ton/yr</b>	<b>218.37 ton/yr</b>
<b>PM-10:</b>	<b>10.53 ton/yr</b>	<b>35.55 ton/yr</b>	<b>46.08 ton/yr</b>
<b>S O 2:</b>	<b>99.00 ton/yr</b>	<b>0.00 ton/yr</b>	<b>99.00 ton/yr</b>
<b>N O x:</b>	<b>99.00 ton/yr</b>	<b>0.00 ton/yr</b>	<b>99.00 ton/yr</b>
<b>V O C:</b>	<b>13.43 ton/yr</b>	<b>85.57 ton/yr</b>	<b>99.00 ton/yr</b>
<b>C O:</b>	<b>30.11 ton/yr</b>	<b>0.00 ton/yr</b>	<b>30.11 ton/yr</b>

**\*\* miscellaneous \*\***

**326 IAC 7 Compliance Calculations:**

The following calculations determine the maximum sulfur content of distillate fuel oil allowable by 326 IAC 7:

$$\begin{aligned} 0.5 \text{ lb/MMBtu} \times 140,000 \text{ Btu/gal} &= 70 \text{ lb/1000gal} \\ 70 \text{ lb/1000gal} / 142 \text{ lb/1000 gal} &= 0.5 \% \end{aligned}$$

Sulfur content must be less than or equal to 0.5% to comply with 326 IAC 7.

The following calculations determine the maximum sulfur content of waste (residual) oil allowable by 326 IAC 7:

$$\begin{aligned} 1.6 \text{ lb/MMBtu} \times 120,000 \text{ Btu/gal} &= 192 \text{ lb/1000gal} \\ 192 \text{ lb/1000gal} / 147 \text{ lb/1000 gal} &= 1.3 \% \end{aligned}$$

Sulfur content must be less than or equal to 1.3% to comply with 326 IAC 7.

**326 IAC 6-3-2 Compliance Calculations:**

The following calculations determine compliance with 326 IAC 6-3-2 for process weight rates in excess of 30 tons per hour:

$$\text{limit} = 55 * (300^{0.11}) - 40 = 63.00 \text{ lb/hr or } 275.95 \text{ ton/yr}$$

Since the emission limit pursuant to Subpart I of 45.74 tons per year, is more stringent than this limit, the limit pursuant to 326 IAC 6-3-2 does not apply. The emission limit pursuant to Subpart I shall also render the requirements of 326 IAC 2-2 (PSD) not applicable.

**PM-10 Emission Limit:**

$$\begin{aligned} (99.0 \text{ tons PM-10/yr} - 36.48 \text{ tons PM-10/yr from other sources}) \\ = 62.5 \text{ tons PM-10/yr} = 14.27 \text{ lbs/hr} \end{aligned}$$

PM-10 emissions from the aggregate dryer are controlled to 10.25 tons/yr < 62.5 tons/yr (Will comply)

Based on a maximum asphalt mix throughput of 300 tons/hr, this emission limit is equivalent to 0.048 lb PM10 per ton of asphalt mix.

**40 CFR Part 60.90, Subpart I (Standards of Performance for Hot Mix Asphalt Plants) Compliance Calculations:**

The following calculations determine compliance with NSPS, which limits stack emissions from asphalt plants to 0.04 gr/dscf:

$$\frac{44.15 \text{ ton/yr} * 2000 \text{ lb/ton} * 7000 \text{ gr/lb}}{525,600 \text{ min/yr} * 30,462 \text{ dscf/min}} = 0.039 \text{ gr/dscf (will comply)}$$

Allowable particulate emissions under NSPS equate to 45.74 tons per year. 10.44 lbs/hr

Note:

$$\begin{aligned} \text{SCFM} &= 38,654 \text{ acfm} * (460 + 68) / (460 + 210) \\ &= 30,462 \text{ scfm} \end{aligned}$$

### Hazardous Air Pollutants (HAPs)

#### \*\* aggregate dryer burner\*\*

The following calculations determine the amount of HAP emissions created by the combustion of distillate fuel oil before & after controls @ 0.50 % sulfur, from the aggregate dryer burner, based on 8760 hours of use and US EPA's AP-42, 5th Edition, Section 1.3 - Fuel Oil Combustion, Table 1.3-11.

Hazardous Air Pollutants (HAPs):		103.5 MMBtu/hr * 8760 hr/yr	* Ef (lb/10 <sup>12</sup> Btu) = (ton/yr)	
		2,000 lb/ton		
			Potential To Emit	Limited Emissions
<b>Arsenic:</b>	4 lb/10 <sup>12</sup> Btu =		1.81E-03 ton/yr	2.18E-06 ton/yr
<b>Beryllium:</b>	3 lb/10 <sup>12</sup> Btu =		1.36E-03 ton/yr	1.63E-06 ton/yr
<b>Cadmium:</b>	3 lb/10 <sup>12</sup> Btu =		1.36E-03 ton/yr	1.63E-06 ton/yr
<b>Chromium:</b>	3 lb/10 <sup>12</sup> Btu =		1.36E-03 ton/yr	1.63E-06 ton/yr
<b>Lead:</b>	9 lb/10 <sup>12</sup> Btu =		4.08E-03 ton/yr	4.90E-06 ton/yr
<b>Manganese:</b>	6 lb/10 <sup>12</sup> Btu =		2.72E-03 ton/yr	3.26E-06 ton/yr
<b>Mercury:</b>	3 lb/10 <sup>12</sup> Btu =		1.36E-03 ton/yr	1.63E-06 ton/yr
<b>Nickel:</b>	3 lb/10 <sup>12</sup> Btu =		1.36E-03 ton/yr	1.63E-06 ton/yr
<b>Selenium:</b>	15 lb/10 <sup>12</sup> Btu =		6.80E-03 ton/yr	8.16E-06 ton/yr
		Total HAPs =	1.54E-02 ton/yr	1.85E-05 ton/yr

The following calculations determine the amount of emissions created by re-refined waste oil combustion, from asphalt heating, @ 0.0089 % lead, based on 8760 hours of use and US EPA's AP-42, 5th Edition, Section 1.11 - Waste Oil Combustion, Tables 1.11-1, 1.11-2, and 1.11-3.

Hazardous Air Pollutants (HAPs):		103.5 MMBtu/hr * 8760 hr/yr	* Ef (lb/1000 gal) = (ton/yr)	
		120,000 Btu/gal * 2000 lb/ton * 1000 gal/kgal		
			Potential To Emit	Limited Emissions
<b>Lead:</b>	0.4895 lb/1000 gal =		1.85 ton/yr	2.22E-03 ton/yr

#### \*\* aggregate drying: drum-mix plant \*\*

The following calculations determine the amount of HAP emissions created by aggregate drying before & after controls, based on 8,760 hours of use and USEPA's AP-42, 5th Edition, Section 11.1 - Hot Mix Asphalt Plants, Table 11.1-10 for a drum mix dryer which can be fired with either fuel oil or natural gas. The HAP emission factors represent the worst case emissions (fuel oil combustion).

Pollutant:	Ef	lb/ton x	300	ton/hr x	8760 hr/yr		
			2000	lb/ton			
Hazardous Air Pollutants (HAPs):					Potential To Emit	Limited Emissions	
	<b>Benzene:</b>	3.90E-04	lb/ton =		0.51 ton/yr	0.51 ton/yr	
	<b>Ethylbenzene:</b>	2.40E-04	lb/ton =		0.32 ton/yr	0.32 ton/yr	
	<b>Formaldehyde:</b>	3.10E-03	lb/ton =		4.07 ton/yr	4.07 ton/yr	
	<b>Hexane:</b>	9.20E-04	lb/ton =		1.21 ton/yr	1.21 ton/yr	
	<b>2,2,4 Trimethylpentane:</b>	4.00E-05	lb/ton =		0.05 ton/yr	0.05 ton/yr	
	<b>Methyl chloroform:</b>	4.8E-05	lb/ton =		0.06 ton/yr	0.06 ton/yr	
	<b>Toluene:</b>	2.90E-03	lb/ton =		3.81 ton/yr	3.81 ton/yr	
	<b>Total Polycyclic Organic Matter (POM):</b>	8.800E-04	lb/ton =		1.16 ton/yr	1.16 ton/yr	
	<b>*Xylene:</b>	2.00E-04	lb/ton =		0.26 ton/yr	0.26 ton/yr	
		Total HAPs :			11.46 ton/yr	11.46 ton/yr	

**\*\* summary of source HAP emissions potential to emit \*\***

Hazardous Air Pollutants (HAPs):

Arsenic:	0.002 ton/yr
Benzene:	0.512 ton/yr
Beryllium:	0.001 ton/yr
Cadmium:	0.001 ton/yr
Chromium:	0.001 ton/yr
Ethylbenzene:	0.315 ton/yr
Formaldehyde:	4.073 ton/yr
Hexane:	1.209 ton/yr
2,2,4 Trimethylpentane:	0.053 ton/yr
Lead:	1.849 ton/yr
Manganese:	0.003 ton/yr
Mercury:	0.001 ton/yr
Methyl chloroform:	0.063 ton/yr
Nickel:	0.001 ton/yr
Selenium:	0.007 ton/yr
Toluene:	3.811 ton/yr
Total POM:	1.156 ton/yr
Xylene:	0.263 ton/yr
<b>Total:</b>	<b>13.323 ton/yr</b>

**\*\* summary of source HAP limited emissions \*\***

Hazardous Air Pollutants (HAPs):

Arsenic:	0.000 ton/yr
Benzene:	0.512 ton/yr
Beryllium:	0.000 ton/yr
Cadmium:	0.000 ton/yr
Chromium:	0.000 ton/yr
Ethylbenzene:	0.315 ton/yr
Formaldehyde:	4.073 ton/yr
Hexane:	1.209 ton/yr
2,2,4 Trimethylpentane:	0.053 ton/yr
Lead:	0.002 ton/yr
Manganese:	0.000 ton/yr
Mercury:	0.000 ton/yr
Methyl chloroform:	0.063 ton/yr
Nickel:	0.000 ton/yr
Selenium:	0.000 ton/yr
Toluene:	3.811 ton/yr
Total Polycyclic Organic Matter:	1.156 ton/yr
Xylene:	0.263 ton/yr
<b>Total:</b>	<b>11.458 ton/yr</b>